

# NORTH DAKOTA

## NPS POLLUTION MANAGEMENT PROGRAM

### FISCAL YEAR 2003 ANNUAL REPORT

November 1, 2002 - October 31, 2003

## Contents

<b>Section I</b> - Introduction.....	3
<b>Section II</b> - Resource Assessment.....	6
<b>Section III</b> - Prioritization .....	12
<b>Section IV</b> - Assistance .....	15
<b>Section V</b> - Coordination .....	23
<b>Section VI</b> - Information/Education .....	26
<b>Section VII</b> - Evaluation .....	31

## Tables

<b>Table 1</b> - Annual Section 319 Allocations.....	3
<b>Table 2</b> - NPS Program Staffing & Support Expenditures.....	16
<b>Table 3</b> - Section 319 Allocations & Expenditures per Project Category.....	16

## Figures

<b>Figure 1</b> - Status of Hydrologic Unit Delineations.....	8
<b>Figure 2</b> - Watershed Project Cumulative Line Item Expenditures.....	33

## Appendices

<b>Appendix A</b> - NPS Project Budgets & Status.....	38
<b>Appendix B</b> - Project Allocations & Expenditures Under the 1999 Consolidated Grant.....	42
<b>Appendix C</b> - Project Allocations & Expenditures Under the 2003 Consolidated Grant.....	45
<b>Appendix D</b> - Watershed Project Area Map.....	48
<b>Appendix D</b> - Watershed Project BMP Expenditures Under the 2003 Consolidated Grant.....	50

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11/01/02 - 10/31/03**

**I. Introduction**

Since 1990, the North Dakota NPS Pollution Management Program has received \$36,694,407 in Section 319 funding (Table 1) to support NPS Program personnel and over 90 locally sponsored projects. Under the active Section 319 Grants, approximately, 9% of these funds have been secured for NPS Program staffing and support. The balance of the funds, 91%, have been allocated to locally sponsored projects focused on NPS pollution control or assessment.

**Table 1.** Annual Section 319 Allocations & Non-Federal Match Commitments

<u>Fiscal Year</u>	<u>319 Allocation</u>	<u>State/Local Match</u>	<u>Annual Budget</u>
90	\$667,700	\$445,133	\$1,112,833
91	568,780	379,187	947,967
92	618,614	412,409	1,031,023
93	460,267	306,845	767,112
94	882,198	588,132	1,470,330
95	886,920	591,280	1,478,200
96	1,387,260	924,840	2,312,100
97	2,403,984	1,602,656	4,006,640
98	2,403,984	1,602,656	4,006,640
99	4,821,000	3,214,000	8,035,000
00	4,776,400	3,184,267	7,960,667
01	5,598,000	3,732,000	9,330,000
02	5,598,000	3,732,000	9,330,000
<u>03</u>	<u>5,621,300</u>	<u>3,747,533</u>	<u>9,368,833</u>
<b>TOTAL</b>	<b>\$36,694,407</b>	<b>\$24,462,938</b>	<b>\$61,157,345</b>

State and local projects supported with Section 319 funding can be placed under one of four different categories. These project categories are: 1) development phase projects; 2) educational

projects; 3) technical support projects; and 4) watershed projects. In addition, under each of these categories, there may be one or more different types of projects.

The primary purposes of development phase projects are to identify beneficial use impairments or threats within specific waterbodies and determine the extent to which those threats or impairments are due to NPS pollution. Typically, development phase projects involve an inventory of existing data and supplemental monitoring to allow accurate assessment of the targeted waterbody and its watershed. Through these efforts, the local project sponsors are able to: 1) determine the extent to which beneficial uses are being impaired by NPS pollution; 2) identify specific sources and causes of the pollutants; 3) establish preliminary pollutant reduction goals or TMDL's; and 4) identify management measures needed to restore or maintain the beneficial uses of the waterbody. Types of projects under this category include: 1) NPS Assessment Projects; 2) TMDL Development Projects; and 3) Multi-Year NPS Assessment Projects.

Educational projects are designed to increase public awareness and understanding of various NPS pollution issues and/or the solutions to specific NPS pollution concerns. The focus of these educational efforts may range from a local source or cause of NPS pollution to statewide measures that can be initiated to reduce NPS pollution. Educational tools typically used include brochures, all media (TV, radio, newspaper, etc.), workshops, "how to" manuals, tours, exhibits, and demonstrations. Two types of educational projects are currently being delivered in the state. One type of educational project, Demonstration Projects, focus on the development of on-the-ground demonstrations for educational purposes. The other project type includes the Public Outreach Projects, which are focused on the distribution of information on various local and/or state NPS pollution issues.

Projects designed to deliver technical or financial assistance to other ongoing NPS pollution management projects are identified as "Technical Support Projects." These projects are either statewide or targeted toward a "project area" that includes multiple NPS projects. The primary purpose of these projects is to deliver a specific service or "tool" to locally sponsored NPS projects. Specific types of assistance or management tools being delivered by the technical support projects include: engineering designs; manure management planning, digitized soils, landuse satellite imagery, and wetland restoration/creation support.

The watershed project category is the largest category and includes the most comprehensive projects currently implemented through the NPS Pollution Management Program. These projects are typically long-term efforts designed to address documented NPS pollution impacts and beneficial use impairments within priority watersheds. Common objectives for watershed projects include; 1) protection and/or restoration of impaired beneficial uses through voluntary implementation of best management practices; 2) dissemination of information on local NPS pollution concerns and effective solutions to those concerns; and 3) evaluation of progress toward identified use attainment or NPS pollutant reduction goals. In nearly all cases, the goals

and objectives for the watershed projects are identified through implementation of some type of development project (e.g., NPS Assessment Projects, TMDL Development, etc.).

The North Dakota Nonpoint Source Pollution Management Program continues to be a voluntary program delivered through locally sponsored initiatives designed to reduce and/or prevent NPS pollution impacts to beneficial uses of the state's water resources. To emphasize this "local focus" and more clearly define the long term direction of the NPS Program, the ND Department of Health (NDDH) updated the state's NPS Pollution Management Program Plan (Management Plan) in 1999. The updated Management Plan was fully approved by EPA on October 28, 1999. The Management Plan mission statement and long term goal are as follows:

North Dakota NPS Program Mission: "To protect or restore the chemical, physical, and biological integrity of the waters of the state by promoting locally sponsored, incentive based, voluntary programs where those waters are threatened or impaired due to nonpoint sources of pollution."

North Dakota NPS Management Program Long-term Goal: "To initiate a balanced program focused on the restoration and maintenance of the beneficial uses of the State's water resources (i.e. streams, rivers, lakes, reservoirs, wetlands, aquifers) impaired by NPS pollution."

To report on annual accomplishments and progress toward the NPS Program goals, the annual report format has been divided into seven sections. These sections and associated reporting information are organized to be consistent with the sections in the Management Plan. This section, Section I, identifies the NPS Program long term goal as well as provides a general description of the types of projects supported by the program. Sections II through VII discuss the accomplishments associated with each component of the Management Plan. Information presented in each section will include a discussion on the accomplishments related to the applicable goal and a brief status report on the specific tasks associated with the objectives. The six major components of the Management Plan that are addressed in the annual reports are as follows:

- C Resource Assessment - This section addresses the NPS Program's existing inventory/assessment system and future needs to improve or expand assessment efforts.
- C Prioritization - This section discusses existing and future prioritization methods or strategies within the NPS Program.
- C Assistance - This section focuses on "how" the financial and technical assistance available through the Program is delivered to state/local project sponsors.
- C Coordination - Development and maintenance of partnerships with private and local/state/federal agencies and organizations are described in this section.

- C Information/Education - The Program's multi-year strategy for public outreach and information dissemination is described under this section.
- C Evaluation/Monitoring - Program and local project evaluation/monitoring efforts are addressed in this section.

During the annual report process, some of the original goals, objectives or tasks may be revised or updated. If revisions are made, it is indicated in the annual report by inserting a revised date (i.e., Revised 10/03), where applicable. The revised portions of the goal, objective or task statement are also underlined. All revisions completed under the annual reports will be incorporated into the Management Plan when it is updated.

## II. Resource Assessment

**Resource Assessment Goal:** To accurately and thoroughly assess beneficial use support and the sources and causes of use impairments within the state's watersheds.

Resource assessment has continued to be accomplished at the state and local level. On a statewide basis, data (e.g., water quality, biological, etc.) collected by state and local staff is being utilized to evaluate trends in the water quality and beneficial uses of numerous waterbodies throughout the state. At the local level, resource managers use watershed-specific data to identify beneficial use impairments within priority waterbodies or measure benefits resulting from applied BMP. To establish consistent hydrologic unit boundaries, the NDDH has also remained directly involved in ongoing efforts to digitize the 12 digit hydrologic unit boundaries throughout the state.

The 303(d) list (TMDL List) and 305(b) Reports are the primary statewide documents used during initial watershed planning efforts. Information in these documents is being used to establish state and local priorities; determine general resource assessment or management needs; and identify areas needing additional evaluation. Future 305(b) Reports will also serve as the primary documents for the evaluation of NPS Program. The most recent editions of these documents are available on the NDDH web site [www.health.state.nd.us](http://www.health.state.nd.us).

To coordinate the development of total maximum daily loads (TMDL), the NDDH has employed additional staff. Through the efforts of these individuals, local resource managers have become more aware of the TMDL process/program and are now using the TMDL List more frequently to establish local NPS pollution assessment priorities. As a result, a greater portion of future Section 319 allocations for development projects are expected to be awarded to projects targeting waterbodies on the TMDL List. Appendix A identifies the budgets and project periods for all the development/assessment projects supported with Section 319 funding since July 1, 1999.

Locally sponsored NPS assessment or TMDL development projects continue to be the primary means used to determine subwatershed priorities and specific management measures. These local assessments, commonly referred to as "development projects," provide the foundation for

all watershed projects by identifying specific sources and causes of NPS pollutants impairing or threatening beneficial uses. This information is then used to establish local watershed priorities when multiple waterbodies are involved as well as to develop multi-year project implementation plan (PIP) that address identified beneficial use impairments. When applicable, NDDH staff also coordinate with the local sponsors to utilize the assessment data to develop TMDLs.

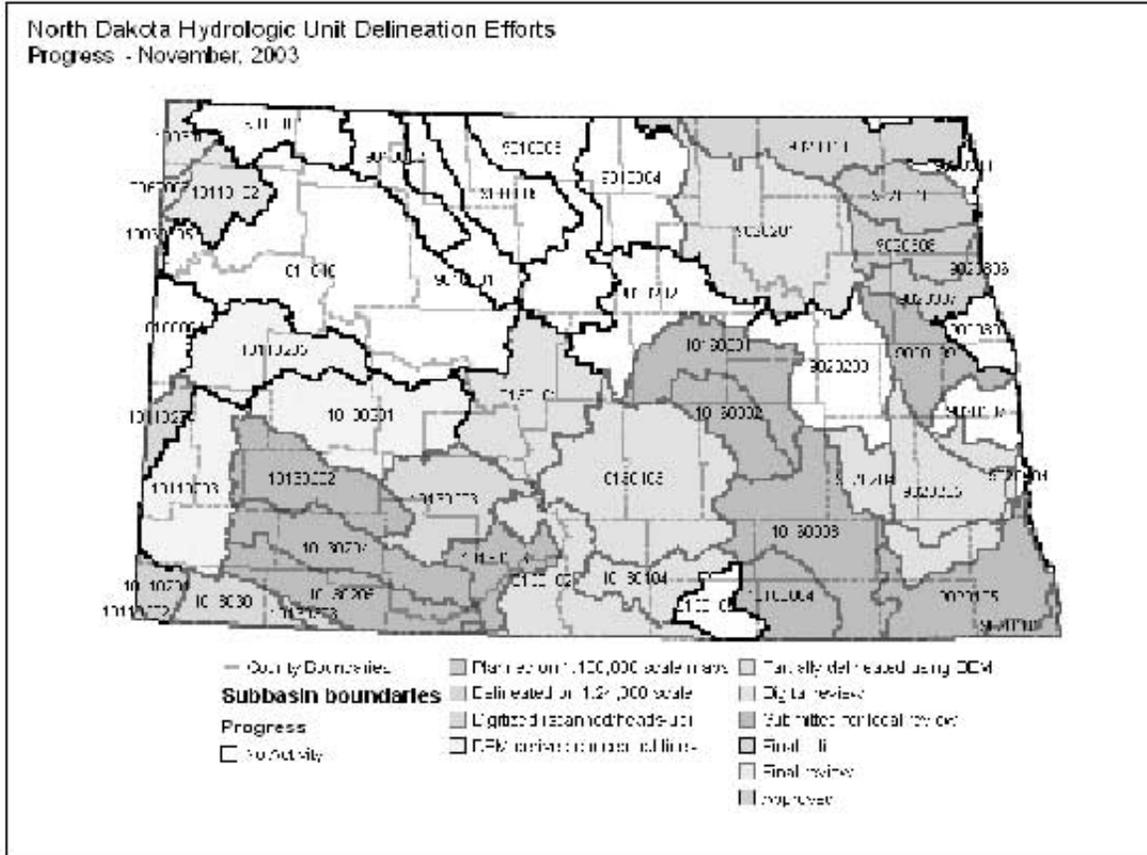
During the past year, the NPS Program has supported 14 development phase projects. At the conclusion of these projects, NPS Program staff and the local sponsors will develop a NPS assessment report and/or TMDL. When multiple subwatersheds are involved, the sponsors will also assign priority Tier rankings to each watershed. Each assessment report or TMDL will identify the beneficial use impairments, sources and causes of pollutants impairing the uses; watershed management needs; and pollutant reduction goals. Typically this information is then used by the local sponsors to develop watershed management plans. All NPS assessment reports developed, to date, are maintained on file at the NDDH and local project offices.

There are two sources of Section 319 financial support for assessment level projects. Generally, the short term NPS Assessment Projects are supported with Section 319 funds available through the NPS Program's "Project Development Fund." Section 319 funds available through the Project Development Fund are unexpended funds reallocated from other NPS projects that were completed under budget. If the waterbody is also listed on the TMDL List, alternative funding sources (e.g., 604(b); 104(b)(3)) may also be used to support the assessment activities. For the multi-year or basin-wide NPS Assessments, the local sponsors participate in the annual Section 319 grant application process to secure Section 319 support (Base or Incremental Funding) for their projects. Regardless of the source, the match to the Section 319 funding is provided by the local project sponsors.

As part of a nationwide effort to create a national, consistent and seamless watershed database, several state and federal agencies have partnered to delineate and digitize watershed and subwatershed boundaries in North Dakota. The NDDH, in cooperation with the Natural Resource Conservation Service (NRCS), is the lead agency in the project. These two agencies, along with the North Dakota Geological Survey, North Dakota State Water Commission, U.S. Geological Survey, and the U.S. Forest Service - Dakota Prairie Grasslands signed a memorandum of understanding in the summer of 2000 and began this cooperative effort. Other state, federal and tribal organizations also involved in the delineation project include the: North Dakota Game and Fish Department, North Dakota Department of Transportation, North Dakota Water Users Association, U.S. Department of Agriculture - Agriculture Statistics Service, Bureau of Reclamation, Three Affiliated Tribes, Federal Highway Administration, U.S. Army Corps of Engineers, and National Weather Service. All of these groups or agencies have representatives on the Interagency Hydrologic Unit Work Group (IHUG), which oversees the delineation process.

Figure 1 shows the 12 digit HU delineation progress, to date. As the watershed delineation project proceeds and preliminary data sets are released for review by the local water resource boards, they will also be placed on the North Dakota GIS Data Hub at [www.discovernd.com/gis](http://www.discovernd.com/gis).

**Figure 1.** Status of hydrologic unit delineations as of November, 2003.



## **A. Assessment Objective & Task Accomplishments**

**Objective 1.** Complete periodic assessments of the eight digit hydrologic units in the state.

**Task 1:** Review various assessment methods and existing water quality and natural resource inventory (NRI) data to develop a strategy for completing a unified assessment of the eight digit hydrologic units in the state. [**Product:** *Data sets and process for assessing the eight digit hydrologic units*; **Milestone:** *August 1998*]

Complete - In cooperation with NRCS, existing water quality and landuse data was reviewed and a unified watershed assessment process was established in 1998.

**Task 2:** (Revised 10/03) Conduct an assessment of the state's eight digit hydrologic units every five years. [**Product:** *Unified Watershed Assessment Reports*; **Milestone:** *October 1998, Discontinued after 1999*]

Discontinued - The first North Dakota Unified Watershed Assessment - FY 1999

was completed in September 1998. The assessment report can be found under “publications” on the NDDH home page ([www.health.state.nd.us](http://www.health.state.nd.us)). This task was discontinued after 1999 due to policy changes.

**Objective 2.** Develop and implement a strategy/process that will allow accurate assessment of the water quality and beneficial use conditions within the state’s 12 digit hydrologic units.

**Task 3:** (Revised 10/01) Coordinate with the appropriate agencies and organizations to delineate and digitize the 12 digit hydrologic units in the state. [**Product:** *GIS coverage and maps of the state’s 12 digit hydrologic units; Milestone: (Revised) October 2004*]

On Schedule - Figure 1 identifies the current status for the 12 digit HU delineations.

**Task 4:** (Revised 10/03) Inventory existing data/information and determine data needs (land use, water quality, biological, etc.) for assessing local watersheds and/or 12 digit hydrologic units in the major river basins. [**Product:** *Summaries of existing data to be used for identifying and prioritizing data collection needs within local subwatersheds; Milestone: (Revised) Data inventories for the local watersheds is an ongoing effort; All data summaries as well as all subsequent tasks/efforts related to the “systematic approach” for assessing the 12 digit HU’s in the major river basins have been postponed until the 12 digit HU delineation process is completed statewide. The need and feasibility of this “systematic approach” will be reevaluated in 2005 and the appropriate task revisions will be made at that time.*]

On Schedule - Preliminary data inventories have been conducted for the assessment/development projects listed in Appendix A. Information sources included 305(b) Reports, the 1999 UWA; USGS; NDDH and local feedback. Refer to the Milestone statement regarding the status of inventories for the 12 digit HU’s in the major river basins.

**Task 5:** (Revised 10/03) Coordinate and implement monitoring and assessment activities within local priority subwatersheds and/or 12 digit HU’s to determine beneficial use impairments. [**Product:** *Local and/or state level Quality Assurance Project Plans (QAPP) describing monitoring and assessment goals and objectives, sampling procedures, responsible organizations, etc.. -- 3-5 QAPP’s developed and/or implemented/year; Milestone: (Revised) The local assessment activities have been ongoing since 1999; 2-5 QAPP’s will be developed, annually, for local priority watersheds*]

On Schedule - Appendix A lists the active and completed assessment projects supported with Section 319 funds since July 1999. All assessment projects have approved QAPP’s. Refer to the Milestone Statement for Task 4 under Objective 2

regarding the status of the “systematic approach” for assessing the 12 digit HU’s in the major river basins.

**Task 6:** (Revised 10/03) Compile existing and new data to assess beneficial use support and watershed conditions within local priority watersheds and/or the 12 digit HU’s. *[Product: NPS Assessment Reports and/or TMDL’s (as appropriate) based on data collected within the local watersheds and/or 12 digit HU’s; Milestone: (Revised) Development of NPS Assessment Reports or TMDL’s for local watersheds has been ongoing since November 1999; The portion of the task to develop NPS Assessment reports and/or TMDL’s for the 12 digit HU’s in the major river basins has been postponed and will be reevaluated after the delineation process is completed statewide.]*

On Schedule - The appropriate NPS Assessment Reports and/or TMDL’s have been or are being developed for all the completed projects listed in Appendix A. All completed reports are available through the NDDH. Refer to the Milestone Statement for Task 4 under Objective 2 regarding the status of the “systematic approach” for assessing the 12 digit HU’s in the major river basins.

**Objective 3:** (Revised 10/03) Establish assessment goals for the local priority watersheds and/or the 12 digit HU’s within the six major river basins and develop quality assurance project plans (QAPP’s) to assess beneficial use conditions and identify sources and causes of pollutants impairing beneficial uses. [Note: Refer to the Milestone Statement for Task 4 under Objective 2 regarding the status of the “systematic approach” for assessing the 12 digit HU’s in the major river basins.]

**Task 7:** (Revised 10/03) Provide assistance to local resource managers and/or Project Advisory Committees to prioritize local subwatersheds and/or 12 digit HU’s in the six major river basins and establish assessment strategies. *[Product: A priority watershed/waterbody list identifying schedules and strategies for assessing the local priority subwatersheds and/or 12 digit HU’s; Milestone: (Revised) Local subwatershed prioritization is an ongoing effort; Refer to the Milestone Statement for Task 4 under Objective 2 regarding the status of the “systematic approach” for assessing the 12 digit HU’s in the major river basins.]*

On Schedule - To date, assessment strategies have been established and implemented in the Devils Lake Basin, Pembina River Basin, Cannonball River Watershed, and James River Headwaters watershed. Data being collected within these basins is being used to establish rankings for the subwatersheds and set priorities for the implementation of the necessary NPS pollution management measures.

Several Soil Conservation Districts (SCD) have also established assessment strategies for evaluating subwatersheds within their district boundaries. These SCD’s include Bowman/Slope SCD in the Little Missouri Watershed; Mercer

SCD in the Knife River Watershed; LaMoure/James River SCD's in the James River Watershed; Ransom SCD in the Sheyenne River Watershed; and Wild Rice and Richland SCD's in the Wild Rice River Watershed.

**Task 8:** Based on local priorities, assist local sponsors with the development of watershed specific QAPP's as well as the collection and interpretation of monitoring data to; 1) establish watershed specific goals based on identified use impairments and; 2) determine management needs for addressing specific pollutant sources and causes. *[Product: An average of ten watershed specific assessment reports (e.g. TMDLs, watershed PIPs) annually from 1999 through 2013; Milestone: Ongoing effort; was initiated in October 1999]*

On Schedule - QAPP's and reports are developed, as needed, for all NPS development/assessment projects supported with Section 319 funds. Refer to Appendix A for the specific development projects supported this reporting period (NPS Assessment, TMDL Development and Multi-Year NPS Assessment Projects).

**Objective 4:** Assess/evaluate the success of local project efforts (e.g. BMP implementation) to improve water quality and restore and/or maintain the beneficial uses of waterbodies impacted by NPS pollution.

**Task 9:** Assist local sponsors with the development and implementation of QAPP's that are based on specific pollutant reduction goals (e.g. TMDL endpoint) and/or beneficial use improvements for waterbodies addressed under approved project implementation plans (PIPs). *[Product: QAPP's for inclusion in watershed PIPs; 2-5 watershed PIPs/year; Milestone: Ongoing effort; QAPP's for all "new" watershed projects will be completed by September of each year. -- 1999 through 2013.]*

On Schedule - As needed, QAPP's are developed and implemented for all the "new" watershed projects approved by the Task Force and EPA.

**Task 10:** (Revised 10/03) Compile data collected within the watersheds and evaluate progress toward the project's beneficial use restoration and/or pollutant reduction goals. *[Product: End-of-project reports for each watershed project area describing the success of efforts to achieve pollutant reduction goals. The number of reports will be contingent on the number of watershed projects completed; Milestone: Ongoing effort; Data will be reviewed and summarized annually; End-of-project reports will be completed, as needed, each year.]*

On Schedule - All water quality data collected within the watershed projects has been entered in the STORET database. End-of-project reports on the water quality data have been included in the final reports for the completed watershed projects identified in this and previous reports. As they are developed, these

reports are entered in EPA's Grants Reporting and Tracking System (GRTS). During this reporting period, interim water quality reports were developed for two ongoing watershed projects and three "new" watershed projects requesting FY04 Section 319 funding.

### III. Prioritization

**Prioritization Goal:** Based on the most current inventory and assessment data, prioritize the state's waterbodies/watersheds for future NPS pollution assessment or abatement efforts.

The NPS Program currently utilizes a "process" rather than a "physical list" (with the exception of the TMDL List) to identify priority waterbodies in the state. Waterbodies included on the TMDL List are considered high priority waterbodies for the development and implementation of watershed assessments. For those waterbodies lacking data and omitted from the TMDL List, a two step process is used to establish priorities. The first step involves a review of current information (i.e., obtained through local feedback; the 1999 UWA; 305(b) Reports; NDDH; USGS; NRCS; etc.) to establish a preliminary ranking for each subwatershed in the project area. These rankings are used to determine the type of management or assessment activities needed in each subwatershed. The second phase focuses on the development of a priority schedule for the implementation of the appropriate subwatershed assessment or management activities.

Waterbodies given a Tier II or III ranking generally need additional data to accurately identify beneficial use impairments and/or determine the sources and causes of pollutants impairing beneficial uses. For these waterbodies, the local sponsors first set a priority schedule for assessing the waterbodies and then develop and implement quality assurance project plans (according to the priority schedule) to collect the necessary data. This data is then used to determine management needs in the watershed and elevate the waterbody to a higher Tier ranking (e.g., Tier II to Tier I).

The Tier I waterbodies are those watersheds with sufficient data to identify beneficial use impairments as well as the sources and causes of those impairments. Local sponsors will typically recognize the Tier I waterbodies as their highest priority. In such cases, the local sponsors will seek the appropriate financial assistance (i.e., Section 319 funding, EQIP funding, etc.) to implement a comprehensive watershed management plan.

During this reporting period, FY04 Section 319 funding was requested to address identified use impairments in four "new" Tier I waterbodies. Tier I waterbodies addressed under the funding requests included the Knife River tributaries in Mercer County (i.e., Nine Townships Watershed), Bear Creek, Rice Lake, and Bone Hill Creek. The Nine Township and Bear Creek projects were approved for FY04 funding. NPS Assessment or TMDL Development projects were also initiated in the watersheds for 12 Tier II or III waterbodies. The NPS Assessment or TMDL Development projects supported this past year are listed in Appendix A.

## **A. Prioritization Objectives & Task Accomplishments**

**Objective 1:** (Revised 10/03) At the basin and/or local level, categorize specific waterbodies into one of the three Tier rankings.

**Task 1:** (Revised 10/01) Delineate the waterbodies/subwatersheds within each of the six major river basins at the 12 digit HU level or lower. [Product: GIS coverage and maps identifying waterbodies and subwatersheds within each river basin; Milestone: (Revised) October 2004]

On Schedule - Refer to Figure 1 for the current status of the delineation process.

**Task 2:** (Revised 10/03; Moved from Objective 2) In cooperation with local resource managers identify local watershed and/or basin-specific criteria for assigning waterbody Tier rankings. [Product: (Revised) Prioritization processes for identifying Tier I, II, and III waterbodies at the local and/or basin level; Milestone: (Revised) Development of prioritization criteria for local watersheds has been ongoing since November 1999]

On Schedule - Development of prioritization criteria for the major river basin subwatersheds will be reevaluated upon completion of the 12 digit HU delineations. — Currently, Tier rankings for local watersheds are being established by NDDH and local sponsorships, as needed. Typically, water quality and beneficial use data is insufficient and the targeted waterbodies are given a Tier II or III rating. For these waterbodies, local sponsors generally establish a subwatershed assessment schedule based on observed water quality conditions, landuse practices and local concerns. Following the assessments the waterbodies are then elevated to a Tier I ranking.

**Task 3:** (Revised 10/03; Moved from Objective 2) Obtain local input on concerns or perceptions regarding beneficial uses, water conditions, and NPS pollution management needs within the local watersheds and/or river basin. [Product: (Revised) One to two public meetings/project; summary of priority concerns for local waterbodies; Milestone: (Revised) Prioritization of local subwatersheds has been ongoing since November 1999]

On Schedule - NPS Program personnel have participated in committee meetings for all TMDL development or NPS assessment projects. Local concerns have been centered around observed water quality conditions; reduced public use due to water quality, and detrimental landuse practices.

**Task 4:** (Revised 10/03) Review local feedback and current data/information (e.g. watershed assessment reports, 303(d) list, landuse inventories) and assign local or basin-wide waterbody priority rankings. [Product: Localized priorities for watersheds; Milestone: (Revised) Prioritization of local subwatersheds has been ongoing since November 1999.]

On Schedule - A portion of this task originally included a schedule for the prioritization of the 12 digit HU's in the six major river basin. These efforts have been postponed until the delineations are completed. The need and feasibility of this prioritization process will also be reevaluated at that time. (See Objective 2 Tasks under the Assessment Section). — Local priorities or Tier rankings have been or are being established in several watersheds and soil conservation districts (SCD). SCD's or watersheds involved in prioritization activities are as follows: 1) Mercer SCD - Subwatersheds of the Knife River; 2) LaMoure & James River SCD - subwatersheds to the James River; 3) Bowman/Slope SCD - Subwatersheds to the Little Missouri River; 4) Cannonball River Watershed; 5) Pembina River Watershed; 6) Devils Lake Basin; 7) Cedar Creek Watershed; 8) Ransom SCD - Sheyenne River Subwatershed in Ransom County; and 9) Richland SCD - Subwatershed to the Wild Rice River. Subwatersheds within these project areas have been or are being assessed to identify water quality impairments and establish priority rankings (e.g., Tier II or Tier I). Upon completion of the assessment activities, the sponsors will prioritize the Tier I waterbodies for the development and implementation of comprehensive watershed management plans.

**Objective 2:** (Revised 10/03) Establish priority rankings for each of the Tier I, II, and III subwatersheds within local project areas and/or the six major river basins in the state.[Given the similarities between the original Objective 1 and 2, Objective 2 and its Tasks were consolidated with Objective 1.]

**Task 3:** (Moved to Objective 1, Task 2; 10/03) In cooperation with Basin Management Committees, local resource managers, etc., identify local watershed and/or basin-specific criteria for prioritizing the waterbodies/watersheds within each Tier. [**Product:** (Revised) *Prioritization processes for Tier I, II, and III waterbodies and watersheds in each local watershed and/or major river basin;* **Milestone:** (Revised) *Development of prioritization criteria for local watersheds has been ongoing since November 1999; Development of criteria for the major river basins will be initiated in October 2004 and completed in 2007*]

**Task 4:** (Moved to Objective 1, Task 3; 10/03) Obtain input on local priorities regarding beneficial uses, water quality and NPS pollution management needs within the local watersheds and/or the six major river basins. [**Product:** (Revised) *Two to four public meetings/project; local priority rankings of the local watersheds and/or 12 digit HU's within the major river basins (e.g. maps and/or information identifying local priorities);* **Milestone:** (Revised) *Prioritization of local subwatersheds has been ongoing since November 1999; Initial prioritization meetings within each basin will be conducted from October 2004 through October 2005. Based on the outcome of these meetings, each basin will set its own schedule for subsequent meetings to complete this task. It is recognized that this task will be an ongoing effort to accommodate periodic updates to the management plan and waterbody prioritization list.*]

**Task 5:** (Consolidated with Task 4 of Objective 1; 10/01) Based on local input and available data, assign priority ratings (e.g. high, low, medium) for the Tier I, II, or III subwatersheds within in the local priority watershed and/or the 12 digit HU's in each major river basin. [Product: (Revised) Local or basin-wide waterbody priority list and maps identifying priority ratings (i.e., Tier I, II, and III); Milestone: (Revised) Development of local priority ratings has been ongoing since November 1999. Prioritization of the 12 digit HU's within the major river basins will be initiated in October 2005 and conclude in October 2008, at a rate of two basins per year.]

#### **IV. Assistance**

**Assistance Goal:** Provide sufficient financial and technical assistance to local resource managers (e.g. SCDs, WRBs) to ensure accurate identification of beneficial use and water quality impairments resulting from NPS pollution and effective development and completion of projects that will restore and/or maintain the beneficial uses of waterbodies impacted by NPS pollution.

The best measure for evaluating the delivery of NPS Program financial and technical assistance is the number of projects initiated and/or maintained on an annual basis. Delivery of this assistance starts with the development of the project implementation plans and continues throughout the implementation period of the projects. General types of assistance provided to local projects on an annual basis include: project oversight; sample analysis; PIP review and comment; sample collection and project management training; quality assurance project plan development; distribution of educational materials; biological monitoring support; and Section 319 financial support. NDDH personnel involved in the delivery of NPS Program financial and technical assistance are as follows:

- C Water Quality Division Director & Surface Water Program Manager - Program Supervision (0.70 FTE)
- C NPS Program Coordinator - Program Administration (1 FTE)
- C Environmental Scientist - Monitoring/Assessment Assistance (2 FTE)
- C Watershed Planning & Information/Education Coordinator - I/E Assistance (1 FTE)
- C Microbiology and Chemistry Lab Personnel - Sample Analysis (3 FTE)
- C Ground Water Program Personnel - Aquifer Assessment Project (2.5 FTE)
- C Secretarial Assistance (0.5 FTE)

Specific roles of NDDH staff involved in the NPS Program are described in the January 1, 2003 - March 31, 2005 NPS Program Staffing and Support Workplan. Approximately, 9% of the NPS Program budget is utilized to support the NDDH staff involved in the NPS Program. Total expenditures for NPS Program staffing and support during the period of July 1, 1999 through October 31, 2003 are provided in Table 2.

**Table 2.** Estimated NPS Program Staffing & Support Expenditures - 7/1/99 thru 10/31/03

<u>Cost Category</u>	<u>Section 319 Funds</u>	<u>State Match</u>	<u>Total Expenditures</u>
Personnel Salaries	\$790,218.32	\$526,812.22	\$1,317,030.54
Fringe Benefits	\$242,445.22	\$161,630.14	\$404,075.36
Travel	\$75,934.73	\$50,623.15	\$126,557.88
Equipment	\$26,017.04	\$17,344.69	\$43,361.73
Supplies	\$64,471.69	\$42,981.12	\$107,452.81
Other (phone, postage, rent, misc.)	\$89,563.18	\$59,708.78	\$149,271.96
<u>Indirect</u>	<u>\$81,674.40</u>	<u>\$54,449.60</u>	<u>\$136,124.00</u>
<b>TOTAL</b>	<b>\$1,370,324.58</b>	<b>\$913,549.70</b>	<b>\$2,283,874.28</b>

Since July 1999, over 60 locally sponsored projects have received Section 319 financial support. This financial assistance was provided through the 1999 and 2003 Consolidated Grants. The 1999 Consolidated Grant was closed-out on December 31, 2002 and the 2003 Consolidated Grant was initiated on January 1, 2003. Appendices B and C provide a summary of the project-specific budgets and expenditures under each Consolidated Grant. Table 3 lists the cumulative expenditures and distribution of costs between the different NPS project categories during the July 1, 1999 - October 31, 2003 period.

**Table 3.** Section 319 Allocations and Expenditures per Project Type: July 1, 1999 - October 31, 2003.

<u>Project Type</u>	<u>Cumulative 319 Allocation</u>	<u>Cumulative 319 Total Expenditures</u>	<u>Percent Of 319 Expenditures</u>
Development Phase - NPS Assessment	\$478,615.00	\$312,364.18	2.14%
Development Phase - TMDL Development	\$67,688.00	\$45,623.00	0.31%
Education - Demonstration	\$1,745,038.00	\$940,846.35	6.43%
Education - Public Outreach	\$2,752,462.00	\$1,756,557.83	12.01%
Local Project Support (TA or FA)	\$5,493,988.00	\$1,991,708.59	13.62%
NPS Assessment - Multi Year	\$702,608.00	\$429,757.60	2.94%
NPS Program Staffing And Support	\$1,623,544.00	\$1,370,324.37	9.37%
<u>Watershed Project</u>	<u>\$17,907,029.00</u>	<u>\$7,773,958.02</u>	<u>53.17%</u>
<b>Totals:</b>	<b>\$30,770,972.00</b>	<b>\$14,621,139.94</b>	

During the 2003 reporting period, NPS Program staff have assisted local sponsors with the development of PIP's for 11 new or continuation projects seeking FY 2004 Section 319 funding. Nine of the project proposals were approved by the NPS Task Force in October 2003. Of the

nine approved projects, five were continuation projects and 4 were new project proposals. The final PIP's for the approved projects are currently being updated to address recommendations from the Task Force. Upon completion, the final PIP's will be submitted to EPA for FY 2004 Section 319 funding consideration. These PIP's are scheduled to be submitted to EPA in January 2004.

State Water Commission Trust Funds (SWC Funds) have again been a source of non-federal financial assistance for local Section 319 projects this past year. Through the 2003 SWC review process, \$200,000 were appropriated to five locally sponsored Section 319 projects. Given the statewide emphasis on improving manure management, these funds were awarded to projects that are focused on the delivery of engineering assistance to design manure management systems. The SWC Funds awarded to the projects will be used to match existing Section 319 funding to support increased engineering design assistance within NPS projects across the state. Specific projects awarded SWC Funding for the 2004/2005 biennium are as follows:

- \* Livestock Facility Assistance Program \$42,500
- \* Stockmen's Association - Environmental Services Program \$42,500
- \* Dairy Pollution Prevention Program \$42,500
- \* Adams Co, Manure Management Program \$30,000
- \* NPS BMP Team \$42,500

The Save Our Lakes (SOL) Program, administered by the ND Game & Fish Department (NDG&F), is another source of non-federal funding that has been available over the past few years. The primary focus of the SOL Program is the improvement and/or maintenance of water quality and aquatic life uses within the NDG&F Department's priority fisheries. During this reporting period, approximately \$100,000 in SOL funds have been committed to partially support the installation of BMP's within four NPS project areas. BMP's installed have included manure management systems; shoreline stabilization; and wetland creations. Several additional BMP's are also scheduled to be supported with SOL funds in 2004. In most cases, the SOL funds have been used to partially support the participating producer's match to Section 319 cost share assistance.

NPS Program staff have also recently developed a database for tracking BMP's implemented within the NPS project areas. This database will provide local projects with a consistent statewide process for tracking all future BMP's supported with Section 319 funding. Statewide use of the database is scheduled to begin on January 1, 2004. Once the appropriate data is in the database, local project sponsors will be able to closely track BMP types, costs, location, and amounts. In addition, the database will enable the NPS project sponsors to more accurately

report on BMP's installed since January 1, 2004. Through statewide application of the database, the NPS program will be able to improve reports regarding "on-the-ground" accomplishments of all NPS projects.

### **A. Assistance Objective & Task Accomplishments**

**Objective 1:** Increase the ability of potential sponsors to determine their local NPS pollution management needs and develop strategies or plans that will effectively address those NPS pollution concerns.

**Task 1:** Develop and distribute reference materials describing NPS pollution project development and management to soil conservation districts, water resource boards, and other potential local sponsors. [*Product: 150 NPS Project Proposal and Reference Guides; Milestone: October 1998 with updates to the Guide completed annually.*]

Complete - Project Proposal and Reference Guides have been distributed to all the SCD and WRB in the state. This document has been updated as needed.

**Task 2:** (Revised 10/01) Organize and conduct local workshops and/or training sessions focusing on NPS pollution management, water quality/NPS pollution assessment, and project development. The primary target audience will be local resource managers and staff (e.g. SCDs, WRBs) and NRCS field office staff. [*Product: 2-3 workshops or training sessions, annually; Milestone: (Revised) Ongoing effort initiated in August 1999.*]

On Schedule - The major workshop/training event conducted the past year was the "Annual ND/SD Watershed Coordinators Meeting." The 2002 ND/SD Meeting was hosted by the South Dakota NPS Program and held in Aberdeen SD. One-on-one training has also been provided to new NPS project staff and sponsors, as needed. When possible, local Section 319 project staff have also attended various resource management/planning courses provided by NRCS.

**Objective 2:** (Revised 10/03) Provide financial and technical assistance to local project advisory committees to develop and implement assessment projects (or TMDLs) to document local or basin-wide subwatershed priorities and establish specific subwatershed Tier rankings.

**Task 3:** (Revised 10/03) Based on local or basin priorities, provide technical assistance to local project sponsors (e.g. SCDs, WRBs) to develop assessment strategies and/or quality assurance project plans (QAPPs') for the highest priority (e.g., Tier II and III) waterbodies

and watersheds. Watershed assessment strategies and/or QAPP's will describe monitoring and assessment goals, objectives, and tasks, sampling procedures, responsible parties, costs, milestones, and quality assurance/quality control requirements. [**Product:** 4-6 planning meetings per year; 5-10 assessment strategies/QAPP's per year; **Milestone:** This will be an ongoing effort. The targeted completion date for the strategies/QAPP's for each sampling season is February. -- February 1999, 2000, etc.]

On Schedule - See previous information and Task updates in the Assessment and Prioritization Sections.

**Task 4:** Complete contractual/financial agreements with local sponsors and implement monitoring and assessment efforts as scheduled in the QAPP's. [**Product:** An average of 10 development/assessment phase projects (e.g. TMDLs) per year; **Milestone:** This will be an ongoing effort. The development/assessment phase projects will be 1 -2 years in length and be initiated in March/April each year. -- March 1999, 2000, etc.]

On Schedule - Contractual and financial agreements are developed with all NPS project.

**Task 5:** Deliver technical assistance to local sponsors to summarize monitoring and assessment data and develop reports identifying beneficial use impairments, sources and causes of NPS pollution, and watershed specific pollutant reduction targets (e.g., TMDL targets). [**Product:** An average of 10 watershed assessment reports per year; **Milestone:** This is an ongoing effort. The reports are generally completed in February/March of each year.]

On Schedule - All data collected within the assessment project areas has been entered in STORET. Compilation and interpretation of the data is completed at the end of each project and provided to the local sponsors to aid in future management decisions and development of longterm project implementation plans. NPS Assessment Reports for the completed projects listed in Appendix A are available from the NDDH. In most cases, this information is also provided in the PIP's for the project areas. If approved for Section 319 support, the project-specific PIP's with the assessment data summaries are also attached in the GRTS.

**Objective 3:** Provide financial and technical assistance to local sponsors for the development and implementation of watershed projects addressing the highest priority Tier I waterbodies.

**Task 6:** Based on watershed specific NPS assessment reports, assist local sponsors with the development of Tier I watershed project implementation plans (PIPs). [**Product:** 5-10 planning meetings per year; 3-7 watershed PIPs per year. The projected number of

*PIP's developed per year is based on historic Section 319 funding appropriations of \$100 million nationally and does not reflect the FY 1999 funding level of \$200 million. If Section 319 funding continues at the FY 1999 level of \$200 million or in the event additional financial support is received through state, federal, or local sources, the number of PIP's developed annually will likely increase. Through annual Task Force evaluations, this task as well as the others will be reviewed and adjusted accordingly to reflect any changes to the NPS Management Program's goals, objectives, and tasks resulting from increased financial and/or technical support; **Milestone:** This is an ongoing effort. Draft PIPs will be completed by July and final PIPs by October of each year. -- July/October 1999, 2000, etc.]*

On Schedule - Watershed projects funded, to date, are listed in Appendix A. During this reporting period, NPS Program staff have assisted with the development of PIP's for 6 watershed projects requesting FY04 Section 319 funding.

**Task 7:** Submit watershed PIPs to the NPS Task Force and Region VIII EPA for review and Section 319 funding approval. [**Product:** Section 319 funding for a minimum of 3-7 PIPs per year; **Milestone:** The NPS Task Force and EPA will conduct their reviews, annually, during the period of October - January.]

On Schedule - Four watershed PIPs were approved by the NPS Task Force in October 2003. These PIP's are scheduled to be submitted to EPA in January 2004 for FY04 Section 319 funding approval.

**Task 8:** Develop contractual agreements with local sponsors and provide guidance and technical assistance to implement and manage the watershed projects. [**Product:** A minimum of 3-7 new watershed project contracts per year; 5-10 Project Advisory Committee meetings per year; 3-7 training sessions per year on the management of Section 319 and local match funds; information on potential sources of financial assistance; weekly/monthly communication with sponsors or staff; **Milestone:** Ongoing effort; Technical assistance for project management is provided, as needed, throughout the project period.]

On Schedule - Annual contracts are developed and maintained with all NPS projects. When necessary, meetings with local watershed project sponsors are conducted to address any management questions and concerns.

**Objective 4:** Expand sources of financial assistance for NPS pollution projects to reduce local sponsors' match responsibilities and/or the level of Section 319 assistance needed.

**Task 9:** Coordinate NPS Program efforts with local project sponsors, to determine current and future state/local match requirements for local NPS pollution management projects. [**Product:** Report summarizing the cumulative match commitments needed to support current and future NPS projects; **Milestone:** October 1999.]

Complete - A summary of local match needs has been developed. This summary was based on a continued Section 319 allocation of approximately \$5 million. Using this allocation rate, annual local match needs will range between \$2.1 and \$2.9 million.

**Task 10:** Support a state general fund appropriation dedicated to providing cost-share assistance for local Section 319 projects. [**Product:** Biennial appropriations of state general funds to be used to match locally sponsored Section 319 projects; **Milestone:** The state operates on a biennium which begins on July 1st of odd numbered years. Depending on legislative approval, state general funds could be available in July 2001.]

Behind Schedule - To date, a dedicated general fund appropriation has not been achieved. However, several SCD's are continuing to work with their legislators to introduce legislation during the next session in 2004/2005 to establish long term and consistent state-level support for Section 319 projects.

**Task 11:** (Revised 10/02) Establish a CWA SRF loan program to partially support locally sponsored NPS pollution management projects. [**Product:** SRF low interest loan program to support a portion of local NPS project match requirements; **Milestone:** (Revised) December 2003.]

Postponed - The SRF loan program policies for funding the installation of manure management facilities have been completed. Livestock manure management facilities have also been included in the SRF Program's intended use plan. The final step that remains to be completed is the development of a process for reviewing and approving loan requests. This process would be developed in cooperation with the Bank of North Dakota and the Municipal Bond Bank. However, due to current low interest rates and limited local interest in the SRF funding option, completion of this final step has been postponed indefinitely. Local needs and interest will be reevaluated over the next few years to determine if this program and task are needed.

**Task 12:** Develop and distribute a directory of potential local, state, federal, and private sources of financial assistance to project sponsors wanting to address water quality and/or NPS pollution. [**Product:** Financial Assistance Directory and/or information on government programs and private foundations or industries that offer financial assistance to local resource management projects; **Milestone:** July 1999.]

Complete - Utilizing documents developed by EPA and other agencies.

**Task 13:** Strengthen and expand partnerships with various commodity groups (e.g. ND Stockman’s Association, ND Wheat Growers), agricultural companies (e.g. Monsanto, Concord) and other private groups or organizations (e.g. Ducks Unlimited, Certified Crop Advisors) to increase the level of financial and technical assistance available to local NPS pollution projects. [*Product: 2-5 meetings annually; direct mailings; “new” Task Force members and local project partners; Milestone: Ongoing effort; Will be initiated in October 1999.*]

On Schedule - Partnership building is an ongoing effort accomplished at the state and local levels through direct participation in meetings, mailings, personal contacts, etc.. The quarterly NPS Task Force newsletter is also used to keep potential partners informed on NPS Program activities in the state.

**Task 14:** Assist Local Project Advisory Committees with the solicitation of financial assistance from other local/state/federal programs and private foundations or companies to support local NPS pollution management efforts. [*Product: Increased support and participation from a variety of state/federal/local resource management groups, private foundations, local businesses, etc.; Milestone: Ongoing effort; Completed annually as part of the PIP development and implementation activities.*]

On Schedule - During PIP development, the local sponsors are provided information (i.e., contacts, etc.) on other state/federal partners that may be able provide support for their project. The SWC Trust Funds awarded to five NPS projects this reporting period were primarily secured through the efforts of the local project sponsors. Through information provided by these local groups, the NDDH was able to have the SWC reconsider a previous “denial for financial support,” which resulted in the award of \$200,000 in SWC Trust Funds to five NPS projects.

**Objective 5:** Maintain post-project NPS pollution management efforts and document long-term benefits of NPS pollution control and/or water quality improvement practices applied within the project areas.

**Task 15:** (Discontinued 10/01) Provide financial and technical assistance to monitor/evaluate post-project water quality trends and maintenance of restored beneficial uses for three years following the completion of a project. [*Product: Post-project data and reports summarizing trends and/or conditions within the project areas during the three year “post-project evaluation period” -- 1 - 2 reports/year; Milestone: Discontinued*]

Discontinued - Due to time demands associated with the active and new projects, post-project monitoring will be discontinued as a priority task. However, if circumstances allow for post-project monitoring, NPS Program staff will provide assistance, as

needed. Long term biological monitoring efforts conducted by the NDDH, Surface Water Program may also offer opportunities to revisit the bio-monitoring sites within completed project areas to evaluate trends in the aquatic community (fish & macroinvertebrates).

**Task 16:** (Revised 10/01) Provide technical assistance to local project sponsors to maintain post-project I/E efforts. [*Product: Assistance for development and implementation of various I/E projects; Milestone: Ongoing effort; Initiated in October 1998.*]

On Schedule - Post-project assistance is being accomplished through ongoing educational activities (e.g., newsletter, tours, etc.) conducted by the local sponsors and/or NDDH. Due to the growing financial needs of the active and new NPS projects, support for the post-project I/E efforts is limited to technical assistance from the NPS Program. Therefore, “financial assistance” has been omitted from the task statement.

## V. Coordination

**Coordination Goal:** Increase the effectiveness of NPS pollution management in the state by coordinating project development and implementation efforts with local, state, and federal agencies and private organizations involved with natural resource management in the state.

Successful delivery of financial and technical assistance to local sponsors has always involved a coordinated effort between various local/state/federal entities. As in past years, the primary local sponsors continue to be Soil Conservation Districts (SCD) and Water Resource Boards (WRB). The NRCS has also continued to be the main federal partner in most project areas. To strengthen local partnerships, NPS Program staff have continually worked with all project sponsors to include other local resource managers or community organizations in the project planning and implementation process. Through active solicitation for additional partners, most local sponsorships have been able to establish more diverse Project Advisory Committees (PAC) to assist them in project development and management. Although the composition of the PAC's vary between project areas, groups or organizations typically represented on the advisory committees include; NRCS, City Councils, County Commissions, Extension Service, RC&D Councils, SCDs, and WRBs.

Project size is one of the main limiting factors affecting long term or consistent participation in the local PAC's. Committees formed in hydrologic units greater than 300,000 acres seem to be more difficult to establish and the meetings are typically attended by only a small core group of members. Diversity in resource priorities and financial resources appears to be the “root” of these difficulties. Given these experiences, the NPS Program has been and will continue to focus

on the formation of “more localized” project advisory committees rather than basin-wide management committees. Over the long term, as the local PAC’s are formed and delineation of the 12 digit hydrologic units are completed, NPS Program staff will work with the PAC’s within a common river basin to establish basin management committees composed of representatives from each local advisory committee.

NPS Task Force meetings continue to be an effective process for stimulating coordination between state/local NPS projects and similar programs sponsored by other agencies and organizations. Membership on the Task Force includes representatives from nearly all, if not all, state/federal natural resource agencies, several commodity/producer groups, and private wildlife/natural resource groups. Through periodic meetings (2-3/year), the Task Force members are involved in the development of nearly all NPS projects initiated in the state. This forum provides the opportunity for members to gain a better understanding of partnership opportunities for projects sponsored by their agency or organization. The Task Force members also help strengthen and expand coordination efforts across the state by: 1) providing input on the delivery of the NPS Program; 2) participating in draft project reviews; and 3) reviewing/approving NPS projects forwarded to EPA.

#### **A. Coordination Objective & Task Accomplishments**

**Objective 1:** Expand local participation in the prioritization, development, and implementation of NPS pollution management projects

**Task 1:** Develop and distribute information to assist local resource managers with the formation of partnerships. [**Product:** *State Directory identifying agencies and organizations that can provide assistance for NPS project development and implementation - 200 copies; Milestone:* August 1999.]

Complete - Information available through EPA and other agencies regarding various assistance programs has negated the need to develop a state directory. Current information available on assistance programs and potential partners has been distributed regularly. As additional information becomes available it will also be forwarded to the appropriate local entities.

**Task 2:** (Discontinued 10/03) Coordinate the formation of “Basin Management Committees” to facilitate the prioritization, development, and implementation of NPS pollution management projects in the state’s six major river basins. [**Product:** *A minimum of six Basin Management Committees; Participate in 6-12 meetings per year; Milestone:* (Revised) November 2004 through October 2007.]

Discontinued - Formation of basin management committees will be reconsidered when the delineation of the 12 digit hydrologic units is completed and more local PAC's are established in the major river basins. During the interim, emphasis will be placed on the formation of PAC's within the watersheds of 303(d) listed waterbodies. Over time, the PAC's within common river basins may serve as the foundation for the development of basin-wide management committees.

**Task 3:** Assist with the development of Local Project Advisory Committees and participate in their meetings. [**Product:** 3-7 "new" Local Project Advisory Committees established per year; Participate in 2-3 Advisory Committee meetings per project per year; **Milestone:** This will be an ongoing effort; The "new" Advisory Committees will be established during the development of the project plans.]

On Schedule - All NPS projects, particularly the watershed projects, have established project advisory committees. Generally, the groups or agencies represented on the watershed project advisory committees include SCD's, WRB's, NRCS, NDDH, Extension Service, County Commissions, and City Councils.

**Objective 2:** Maintain partnerships and communication with the appropriate local, state, and federal agencies, and private organizations to coordinate resources and ensure other natural resource management efforts are consistent with the state's NPS pollution management goals.

**Task 4:** (Revised 10/01) Obtain input from the Task Force during the development of projects and update its members, regularly, on NPS Management Program and local NPS project activities. [**Product:** (Revised) 2-3 Task Force meetings per year; **Milestone:** Annual Schedule --- Draft PIP review in July; Final PIP review in October; Local project updates/presentations in February.]

On Schedule - The Task Force reviewed 12 draft FY 2004 Section 319 project proposals in August 2003. All Task Force comments and recommendations on the draft proposals were provided to the local project sponsors to assist with the development of final PIPs. In October 2003, the Task Force reviewed 11 final PIP's requesting FY04 Section 319 funding. Nine of the PIP's were approved for FY04 Section 319 funding.

**Task 5:** Participate in interagency meetings addressing the delivery of other state and federal natural resource management programs that may affect NPS pollution management or beneficial uses of the state's water resources. [**Product:** Annual meetings --- 5-6 NRCS State Technical Committee meetings; 2 NDASCD Water Resources Standing Committee meetings; 4 NRCS Interagency, Watershed Committee meetings; 6

*Red River Basin Board meetings; and 4 Pembina River Watershed Advisory Board meetings; **Milestone:** This will be an ongoing effort.]*

On Schedule - On an annual basis, NPS Program and NDDH staff participate in numerous interagency meetings conducted by other resource management agencies (e.g., NRCS, SCD, WRB, etc.).

**Task 6:** Utilize the Task Force to disseminate information to other state and federal agencies to keep them updated on NPS pollution management goals and objectives and priorities within the state. [**Product:** *Materials to be distributed to Task Force members -- - Updated NPS Pollution Management Plan and Waterbody Priority List; Unified Watershed Assessment Report; Updated Section 303(d) Waterbody List; and Section 305(b) Reports; **Milestone:** This will be an ongoing effort. Distribution of the materials will be initiated in January 1999.]*

On Schedule - NPS related materials and documents are provided to the Task Force as they are developed or updated.. The Task Force, in cooperation with the NDDH, also distributes a quarterly newsletter to approximately 1300 individuals.

**Task 7:** (Revised 10/03) Coordinate with federal land managers (e.g. USFWS, USFS, BLM) as needed, to conduct consistency reviews of federal projects and programs on public lands within the watersheds of impaired and/or threatened waterbodies. [**Product:** *Input and comments on water quality concerns associated with projects on federal lands; Information sharing on designated agency contacts and impaired or threatened waterbodies on federal land; **Milestone:** (Revised) This is an ongoing coordination effort.]*

On Schedule - The USF&WS and BLM are the primary federal land managers within the state. Both of these agencies are represented on the NPS Task Force. Through involvement on the Task Force, these agencies are kept current on the various NPS projects on and off federal lands. The Task Force meetings also offer the opportunity to discuss ongoing and pending projects on federal lands that may affect water quality. As part of the annual project review process, the USF&WS is also consulted to obtain input on any threatened and endangered species concerns within the proposed Section 319 project areas.

## **VI. Information and Education**

**Information and Education Goal:** Increase North Dakota residents' understanding of the water quality and beneficial use impairments associated with NPS pollution and strengthen public support for the voluntary implementation of NPS pollution control activities.

Given the voluntary nature of the NPS Program, a variety of educational efforts are being supported across the state to increase public understanding of NPS pollution concerns and strengthen support for current and future NPS pollution control projects. In most cases, these information/education (I/E) efforts are sponsored and implemented by local entities such as soil conservation districts, water resource boards, and NDSU Extension Service. Although the specific goals of each project may vary, cumulatively, the state/local I/E projects form a balanced statewide educational program that addresses a variety NPS pollution issues and targets all the state's residents.

Since July 1999, approximately 18% of total Section 319 expenditures have been associated with the implementation of I/E projects. Through this support, multiple educational events have been conducted ranging from K-12 educational lyceums to manure management workshops for livestock producers. Descriptions of all the active and complete I/E projects and any materials developed by the projects are provided in the GRTS. Appendix A identifies the local I/E projects (e.g., Demonstration and Public Outreach) supported with Section 319 funding since July 1, 1999.

NPS Program staff have also been involved in numerous public events to disseminate information on NPS pollution management. These efforts have included presentations at local tours and workshops, display booths at county fairs and agricultural shows; instruction at ECO ED camps, newsletter articles; and dissemination of materials. Some of the "Technical Support" projects also have a significant I/E component or provide tools for education, that ultimately contribute to the state's public education efforts. Although these projects were not designed to focus solely on public out-reach, they do expend a significant amount of time and resources to develop materials or tools that can be used for educational purposes. Projects serving this I/E supporting role include projects such as; 1) Aquifer Denitrification Assessment; 2) Groundwater Sensitivity Mapping; 3) NDSU Satellite Imagery Applications to Water Quality Protection; and 4) Digital Taxonomic Keys for Aquatic Insects in ND. More detailed information and annual updates on the state or locally sponsored I/E projects are provided in the GRTS.

## **A. Information and Education Objective and Task Accomplishments**

**Objective 1:** Assess the general public's knowledge of NPS pollution issues.

**Task 1:** Conduct fact finding surveys or public forums. [*Product: public surveys conducted every 5 years; Milestone: The first survey was completed in 1994; Subsequent surveys will be completed in 2001; 2006; etc.*]

On Schedule - Currently, a new survey is being developed for use at the NPS Program information booth. Data from surveys conducted this past year at the information booth

during the ND Winter Show and other agricultural shows in the state is being compiled. Materials made available at the booth will be adjusted as the survey results indicate.

**Objective 2:** Deliver a balanced statewide I/E Program that addresses NPS pollution issues in the state and is targeted toward all age groups.

**Task 2:** Evaluate the various NPS pollution/water quality I/E materials developed by state, local, federal, and private organizations and obtain the most applicable materials for distribution in the state. [**Product:** *Library and directory for I/E materials;* **Milestone:** *Ongoing effort*]

On Schedule - The library is updated as new materials are received.

**Task 3:** Conduct periodic reviews of current state and locally sponsored I/E projects to identify effectiveness of the activities and determine if a balanced program is being delivered. [**Product:** *Summaries of ongoing I/E projects and activities and list of additional educational needs;* **Milestone:** *Ongoing effort conducted on an annual basis.*]

On Schedule: Program staff have participated in technical reviews of materials and schedules for Project WET, Statewide ECO ED, Project TREES, and ND Envirothon, as well as various I/E activities sponsored by local watershed projects.

**Task 4:** Meet with the appropriate public/private organizations (e.g., Soil Conservation Districts, Extension Service, etc.) to become familiar with their NPS pollution/water quality efforts and identify opportunities to coordinate similar efforts. [**Product:** *Information and contact directory for other agencies or organizations I/E activities;* **Milestone:** *Ongoing effort.*]

On Schedule - Through frequent interaction with the active I/E projects, program staff have disseminated information on opportunities to coordinate with similar I/E efforts in the state. When available, links to local I/E and watershed project websites are also included on the NPS Program home page.

**Objective 3:** Based on public input and reviews of existing I/E efforts, expand or develop new NPS pollution/water quality I/E activities and materials to ensure the appropriate and sufficient information is available to the residents of the state.

**Task 5:** Develop new educational materials, as needed, to inform the general public on the NPS Program and common NPS pollution management concerns in the state.

*[Product: NPS Web site; Program brochure, information display, fact sheets, etc.; Milestone: Ongoing effort]*

On Schedule: New NPS Program and Conservation BMP brochures are expected to be completed by August 2004. The ND NPS Program website was launched in the spring of 2002 and is updated as needed. The address for the site is [www.health.state.nd.us/wq](http://www.health.state.nd.us/wq). Program staff have also displayed the NPS Program information booth at several agricultural events (e.g., ND Winter Show, Ag Expos, County Fairs, etc.) Materials distributed at the booth include the Program brochure, NPS pollution fact sheets, etc.

**Task 6:** Distribute information during various public events, provide public presentations and organize/conduct workshops for the general public and targeted audiences. *[Product: Attendance at the ND Winter Show; West River, KFYZ, & KMOT Ag Expo's; County Fairs; school presentations; annual coordinator training workshops; etc.. Milestone: Ongoing effort.]*

On Schedule - Information was distributed at several local events by program staff and project sponsors. The NPS Program's information booth appeared at the ND Winter Show, KFYZ Ag Expo, KMOT Ag Expo, West River Ag Expo and several local/county events (e.g., county fairs, etc.).

**Task 7:** Distribute the quarterly Quality Water newsletter and utilize all other media types to promote NPS pollution control and improved landuse management to improve or protect the quality of the state water resources. *[Product: 4 Quality Water Newsletters annually; news articles/releases; promotional advertisements, etc.; Milestone: Ongoing effort]*

On Schedule - Three "Quality Water" newsletters were developed and distributed, this past year, to approximately 1300 individuals and/or local resource management groups.

**Task 8:** Coordinate with local/private natural resource groups and schools to design and implement citizen participation projects. *[Product: Citizen monitoring programs; Envirothon programs, etc.; Milestone: Ongoing effort]*

On Schedule - NPS Program staff have been directly involved in the development and delivery of several local watershed/environmental festivals as well as the TREES Program, Project WET and ND Envirothon Program. Program staff have also been working with NDSU Extension Service to establish a citizens monitoring program in the Red River Valley. It is anticipated that a proposal to support the citizen monitoring program will be submitted during the 2004 Section 319 funding cycle.

**Objective 4:** Deliver a consistent and balanced I/E Program across the state by coordinating with various federal, state, local, and private organizations and/or agencies to develop and implement I/E projects focused on priority NPS pollution management issues in the state.

**Task 9:** Provide financial and technical assistance to local and state sponsored I/E projects focusing on NPS pollution. [**Product:** *Balanced statewide educational program that includes multiple statewide and local projects targeting the general public, agriculture producers, students, teachers, resource managers, etc.;* **Milestone:** *Ongoing effort.*]

On Schedule - NPS Program staff have provided technical assistance, as needed, to all the I/E projects to ensure a balanced program is being delivered. Projects targeting the general public or producers are generally designed to disseminate information on impacts of and/or solutions to NPS pollution. The projects targeting students and/or teachers are designed to increase awareness and create a foundation for future I/E efforts. The primary youth education programs being used to inform and educate students are as follows:

<u>Program</u>	<u>Primary Grade Level</u>	<u>Primary Audience</u>
Project WET	K - 12	Teachers – Materials and Training
Project TREES	K - 6	Students and Teachers
Statewide ECO ED	6 - 8	Students, Teachers and Chaperones
ND Envirothon	9 - 12	Students and Advisors

**Task 10:** Attend and participate in EPA Region VIII I/E Coordinator meetings and other federal or state sponsored conferences to stay abreast of NPS I/E activities in the nation and obtain information for incorporation in to the ND I/E Program. [**Product:** *Information and materials from other states, contacts in other states, knowledge of ongoing I/E efforts across the nation, etc.;* **Milestone:** *Ongoing effort.*]

On Schedule - EPA Regional or national I/E meetings and/or conferences have been attended when possible.

**Task 11:** Assist local I/E project sponsors with the delivery of their programs and facilitate communication and coordination between the projects. [**Product:** *Participation in local I/E activities (e.g., ECO ED Camps, WET Institute, etc.); local project contact directory, information exchange between projects, etc.;* **Milestone:** *Ongoing effort.*]

On Schedule - Program staff have been directly involved in the ECO ED Camps, ND Envirothon Competitions, and Project WET educational offerings and advisory

committee meetings. Technical assistance and support has also been provided, as needed, to several other projects supported with Section 319 funds.

**Task 12:** Update and maintain the Grants Reporting and Tracking System (GRTS).

*[Product: Semiannual and annual updates of all projects funded with 319 funds;*

*Milestone: Semiannual updates - April/May and Annual updates - December/January.]*

On Schedule - All required GRTS updates for 2003 are completed.

**Objective 5:** Evaluate public awareness of NPS pollution issues in the state to determine the effectiveness of the I/E Program and identify additional activities needed to strengthen the program.

**Task 13:** Develop feedback mechanisms that will allow the collection of broad based input from ND residents. *[Product: Surveys, questionnaires, polls, etc.; Milestone: Survey and questionnaires have been developed and are updated as needed]*

On Schedule - An electronic survey form was developed and used at the NPS Program information booth this past year.

**Task 14:** Solicit input from ND residents to gauge their understanding of NPS issues in the state and identify the most effective means for disseminating information to the general public. *[Product: Public surveys, exit surveys for workshops, direct feedback, etc.; Milestone: Public surveys/questionnaires are conducted annually at the NPS Program display booth during the ND Winter Show; direct feedback is an ongoing effort.]*

On Schedule - Direct feedback is an ongoing effort. Through interaction with the public and surveys conducted at the NPS Program information booth during several agricultural shows, data collected is compiled and interpreted.

## **VII. Program Evaluation**

**Evaluation Goal:** Evaluate the successes and failures of the NPS Management Program and identify the necessary updates to the NPS Pollution Management Program to maintain successful delivery of financial and technical assistance to local and state agencies and private organizations addressing NPS pollution.

Program evaluation is being accomplished at two different levels. One component of the NPS Program evaluation process focuses on progression toward the goals listed in the Management Plan. The other part of the process tracks local project benefits and/or accomplishments. Through periodic evaluations and local feedback, the delivery and implementation of the NPS Program can be assessed and the appropriate adjustments can be initiated to ensure priority NPS pollution concerns are addressed as effectively and efficiently as possible.

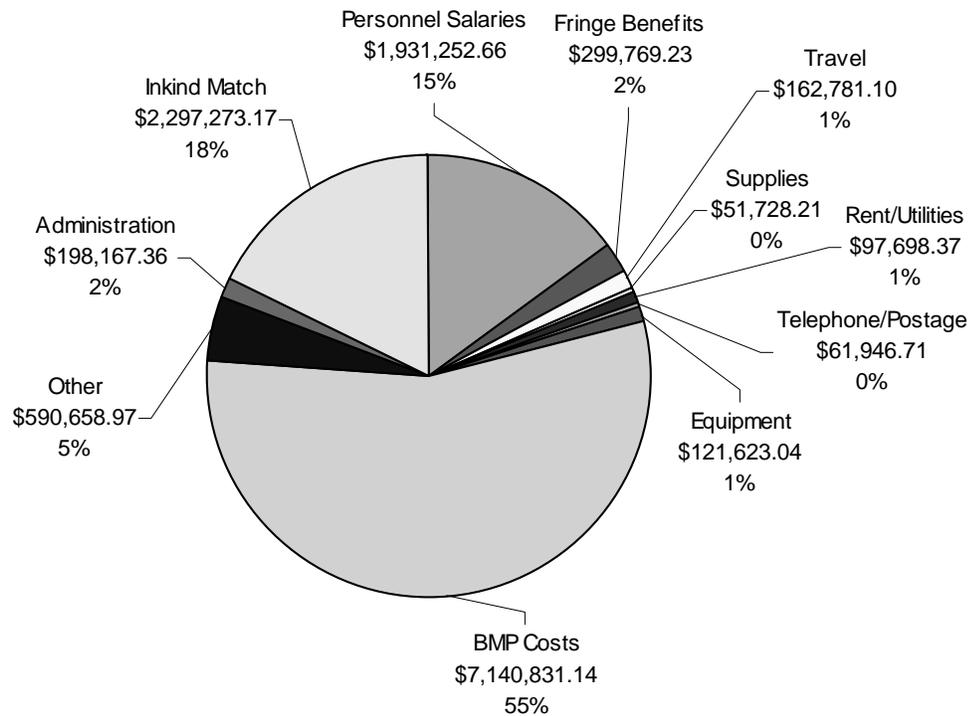
For state-level evaluations, current and future assessment reports, such as the 305(b) Report and annual Groundwater Monitoring Reports, are the primary means used to document trends in water quality, beneficial use conditions, and NPS pollution management in the state. The most recent editions of the Groundwater Monitoring reports and 305(b) Report are provided on the NDDH web site, [www.health.state.nd.us](http://www.health.state.nd.us). The 305(b) Reports, in particular, will be used to evaluate long term, statewide water quality trends as well as to determine the overall success of the state's NPS Pollution Management Program. Under the current NPS Pollution Management Plan, the 1998 305(b) Report is identified as the reference or baseline document for evaluating accomplishments associated with the state's NPS Pollution Management Program. As future 305(b) Reports are developed, NPS pollution data and information in the reports will be compared to similar data presented in the 1998 305(b) Report to document trends/success on a statewide basis. The first in-depth review of NPS Program progress on a statewide basis will coincide with the future updates of the 305(b) Report.

At the local level, within the ongoing NPS watershed project areas, a substantial amount of water quality data (i.e., 800+ samples/year) has been collected annually. Primary parameters being monitored include nitrogen, phosphorus, total suspended solids, and fecal coliform bacteria. With this data, the NPS Program and local sponsors are establishing long term water quality records for over 20 watersheds across the state. A map of the active watershed projects is provided in Appendix D. Upon completion of a specific project, all the appropriate data is interpreted and a summary of the results is incorporated into the applicable final project report in the GRTS. In addition, this same data will be used during development of 305(b) Reports to aid with the evaluation of long term NPS pollution trends in the state and report on the overall success of the NPS Pollution Management Program.

Given the nature and size of many of the NPS watershed projects in the state, annual water quality data generally only offers a tool for measuring long term trends. In many cases, a 10 year data set may be needed to accurately determine any pollutant trends. As a result, to gauge project success during the short term, the NPS Program has continued to depend on information related to the types and amounts of applied BMP's. By tracking the applied BMP's, local sponsors and NPS Program staff can measure annual progress toward established landuse management objectives that need to be accomplished to achieve the project's overall water quality and/or beneficial use goals.

To date, a significant number of BMP's have been implemented within the local watershed project areas. As indicated in Figure 2, fifty-five percent (55%) of total Section 319 expenditures within the watershed projects have been associated with the implementation of BMP's. The most common BMP's implemented with this financial support have included conservation tillage (329A & 329B), nutrient management, manure management systems, and grazing management practices (i.e., fencing, tanks, etc). NPS pollutants addressed by these BMP's include nitrogen, phosphorus, sediment, and fecal coliform bacteria. Appendix E provides a summary of the specific BMP's applied and supported under the 2003 Consolidated Section 319 Grant since January 1, 2003. [Note: Due to database limitations similar BMP information is not available prior to January 2003.] Ultimately, the BMP information as well as the long term water quality and beneficial use data will be used to evaluate cumulative benefits and accomplishments of all the completed NPS watershed projects.

**Figure 2.** Cumulative Line Item Expenditures within the Watershed Project Areas - July 1, 1999 thru October 31, 2003.



To strengthen short term measurement of project success (i.e., applied BMP), the NPS Program is also placing more emphasis on the use of computer modeling during the assessment and implementation phases of the watershed projects. This is particularly true for projects targeting waterbodies on the TMDL List. Consequently, AGNPS modeling has been scheduled within nearly all assessment or development phase projects initiated the past two years. The BASINS model is another model being evaluated by NPS Program staff to determine its applications in North Dakota. As NPS Program staff become familiar with the various models, sufficient technical support should be available to allow all future NPS watershed projects to use computer modeling to identify land management needs as well as predict quantified pollutant reductions resulting from applied BMP.

Overall, the NPS Program has continued to realize an increasing number of NPS pollution control projects each year. This upward trend for NPS project start-ups is in itself significant evidence that NPS pollution management has become a priority resource issue across the state. Although sufficient data is currently not available to accurately verify statewide reductions in NPS pollution, landuse and water quality data collected within the local project areas has indicated that NPS pollution is being addressed in many watersheds through the voluntary application of BMP's. Informal feedback through the NPS projects and various I/E events (e.g., ND Winter Show, etc.) has also indicated increasing public understanding and awareness of common NPS pollution issues in the state. Given the increased public awareness and positive water quality trends within some watershed projects, more widespread implementation of NPS pollution control measures should be realized over the long term and the goals of the NPS Management Plan should be attainable.

### **A. Evaluation Objective & Task Accomplishments**

**Objective 1:** Assess and document beneficial use impairments in the state's surface and ground water resources resulting from NPS pollution and, to the extent possible, identify current and future sources and causes of the use impairments or threats.

**Task 1:** (Revised 10/03) Utilize the most current data and information to develop watershed-specific NPS Assessment Reports and biennial Water Quality Assessment Reports (i.e. Section 305(b) Report). [Product: 1-5 Watershed-Specific NPS Assessment Reports per year and biennial updates to the Section 305(b) Report; Milestone: April 2000, 2002, etc. for the biennial Section 305(b) Report; NPS Assessment Reports will be developed, as needed, on an ongoing basis.]

On Schedule - Updates to the 305(b) Report are completed as scheduled. With the 305(b) Report; Watershed-specific NPS Assessment Reports; and TMDL's meeting Program needs for documenting NPS pollution trends/concerns, revisions to the

statewide NPS Assessment Report have been discontinued. The watershed-specific NPS Assessment Reports and/or TMDL's developed during the assessment phase of local projects are also being utilized to identify management measures needed to restore and maintain local impaired beneficial uses.

**Objective 2:** Maintain effective delivery of the NPS Program by conducting periodic reviews of Program accomplishments.

**Task 2:** (Revised 10/02) Develop a process for Task Force evaluation of NPS Management Program accomplishments. [**Product:** *Task Force evaluation worksheets based on the goals, objectives, and tasks identified in the updated NPS Pollution Management Plan; Milestone: (Revised) December 2004.*]

Complete - Task Force reviews will focus on the current NPS Management Plan objectives and tasks to gauge Program progress. This review process will be accomplished through the regularly scheduled Task Force meetings.

**Task 3:** Establish annual performance measures for NPS Management Program staff which are based on the goals, objectives, and tasks identified in the updated NPS Pollution Management Plan and NPS Pollution Management Base Program Workplan. [**Product:** *Annual performance measures for NPS Management Program Staff; Milestone: July 1999, 2000, 2001, etc.*]

On Schedule - Completed annually by the Surface Water Program Manager.

**Task 4:** (Revised 10/02) Provide the appropriate information to the Task Force to complete reviews of NPS Management Program progress on a five year cycle. [**Product:** *Reports to the Task Force on specific Program accomplishments; Annual GRTS updates on the Program; Task Force evaluation of the Program and recommendations for updates; Milestone: (Revised) Task Force reviews and update recommendations every fifth year - The first Task Force review will occur in January/February 2005; subsequent reviews will occur in 2010, 2015, etc.; Annual GRTS updates - March/November; The first GRTS updates based on the updated NPS Pollution Management Plan were completed in November 1999.*]

On Schedule - The first Task Force review is scheduled for January/February 2005. The GRTS has been updated annually in March and November.

**Task 5:** (Revised 10/02) When appropriate, distribute information and assessment data on future NPS pollution threats to the Task Force to obtain their recommendations on NPS Management Program Plan revisions needed to address new threats to water quality.

*[**Product:** Periodic Task Force reviews of available information on resource management changes occurring in the state and the potential future NPS pollution threats associated with the changes. - Task Force recommendations on NPS Management Program Plan updates or revisions; **Milestone:** (Revised) Dissemination of assessment data and information on potential/new NPS pollution threats will be an ongoing activity. As data and information becomes available, input will be solicited from the Task Force.]*

On Schedule - Since the approval of the current NPS Management Plan, no new or potential NPS pollution threats have been identified.

**Task 6:** Solicit feedback from local project sponsors regarding delivery of NPS Program assistance. *[**Product:** Comments and recommendations through discussions during annual project sponsor and staff workshop; **Milestone:** March 1999, 2000, 2001, etc.]*

On Schedule - Local sponsor feedback is provided through the annual and semiannual project reports. Feedback received in FY2003 is provided in the project-specific reports in the GRTS.

**Task 7:** (Revised 10/02) Review and update the NPS Pollution Management Program Plan on a five year cycle. *[**Product:** Management Plan reviews and updates, as needed, every five years; Minor updates may also be needed more frequently to address interim Task Force recommendations; unavoidable delays; funding limitations; and local feedback; **Milestone:** October 1999, 2005, 2010, etc.]*

On Schedule - Since approval of the Management Plan in 1999, minor revisions have been completed to address unexpected delays and funding limitations. Specific Tasks or Objectives that have been revised are identified in the annual NPS Program reports. These revisions have been identified by including a revised date (e.g., Revised 10/02) in the applicable Task or Objective statements. The additional or revised information in the Task or Objective statements has also been underlined. Following the first Task Force review in 2005, all these “interim revisions” will be incorporated into the Management Plan and the a revised Plan will be forwarded to EPA for final review and approval.

**Objective 3:** Evaluate local NPS project progress toward goals identified in the PIP’s

**Task 8:** Maintain an annual reporting schedule for local NPS Projects. *[**Product:** Semiannual and annual reports on project status and specific task accomplishments. -- 30 - 40 semiannual and annual project reports per year; **Milestone:** Semiannual reports are due in March; Annual reports are due in November.]*

On Schedule - Semiannual and annual project report guidelines have been developed

and distributed to the local sponsors. These guidelines were developed to ensure consistent reporting from the local projects and compatibility with GRTS reporting requirements. All active projects have submitted their FY2003 annual and semiannual reports on schedule. Refer to the GRTS for specific project reports.

**Task 9:** Review and summarize water quality and land use data collected within the watershed project areas to define pre-project conditions and evaluate progress in meeting project goals and objectives. [**Product:** *For each project ---Report on baseline water quality and beneficial use conditions and a final report assessing the water quality and beneficial use improvements related to project activities. The number of reports annually will be dependant on project start-ups and completions; Milestone:* *The schedule for completing reports for each project will be identified in the milestones of each project's QAPP and/or PIP.*]

On Schedule - All water quality data collected within the project areas shown in Appendix D has been entered in STORET. As needed, watershed-specific NPS Assessment Reports have been developed for all the completed assessment projects and the appropriate end-of-project water quality summaries have been developed for all completed watershed projects. As previously indicated, NPS Program staff have also recently developed a database to improve the efficiency and accuracy of BMP tracking within the local watershed project areas as well as statewide. This database should greatly improve future reports on BMP's applied after January 1, 2004.

**Task 10:** Provide annual and semiannual updates on local project progress to EPA Region VIII. [**Product:** *Semiannual and annual updates to the GRTS; Milestone:* *Semiannual report in March; Annual report in November.*]

On Schedule - All FY 2003 semiannual and annual project reports have been entered in the GRTS.

## **Appendix A**

Local NPS Project Budgets & Status - July 1, 1999 thru October 31, 2003

**Section 319 and Local Match Budget Summary For Active and Complete NPS Projects  
July 1, 1999 - October 31, 2003**

**Development Phase - NPS Assessment Projects**

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Bear/Bonehill Creek Assessment	Active	\$48,050	\$32,033	\$80,083	1/1/2002	6/30/2004
Development Projects (Completed under 99 Grant)	Completed	\$233,197	\$155,465	\$388,662	7/1/1999	12/31/2002
Lake Hoskins Water Quality Assessment	Active	\$26,241	\$17,494	\$43,735	1/1/2003	6/30/2004
Ransom C. Sheyenne River Assessment	Active	\$71,760	\$47,840	\$119,600	1/1/2002	6/30/2004
Unobligated Development Phase Fund	Active	\$99,367	\$66,245	\$165,612	7/1/1999	6/30/2008
<b>Sub-Total</b>		\$478,615	\$319,077	\$797,692		

**Development Phase - TMDL Development Projects**

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Armourdale Dam TMDL	Active	\$7,500	\$5,000	\$12,500	10/1/2002	6/30/2004
Blacktail & McGregor TMDL Development Projects	Active	\$15,000	\$10,000	\$25,000	3/1/2003	6/30/2004
Carbury Dam TMDL	Completed	\$7,500	\$5,000	\$12,500	10/1/2002	5/31/2003
Dickinson Dike TMDL Development Project	Active	\$7,500	\$5,000	\$12,500	3/1/2003	6/30/2004
McDowell Watershed TMDL	Active	\$22,688	\$15,125	\$37,813	6/1/2002	9/30/2003
Northgate Dam TMDL	Active	\$7,500	\$5,000	\$12,500	10/1/2002	6/30/2004
<b>Sub-Total</b>		\$67,688	\$45,125	\$112,813		

**Education - Demonstration Projects**

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Barnes Co. Manure Mgt. & Streambank Restoration Demo.	Completed	\$84,667	\$56,445	\$141,112	3/1/1999	6/30/2001
Kelly Creek Water Quality Improvement Demonstration	Completed	\$191,135	\$127,423	\$318,558	7/1/2000	9/1/2003
Mouse River Park Streambank Restoration Demonstration	Completed	\$60,000	\$40,000	\$100,000	7/1/2000	6/30/2001
SW North Dakota NPS/Water Quality I&E Project	Active	\$1,409,236	\$939,491	\$2,348,727	3/1/1997	6/30/2006
<b>Sub-Total</b>		\$1,745,038	\$1,163,359	\$2,908,397		

**Education - Public Outreach Projects**

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Digital Taxonomic Keys for Aquatic Insects in ND	Active	\$100,333	\$66,889	\$167,222	4/1/2001	6/30/2004
Envirothon Program	Active	\$93,945	\$62,630	\$156,575	4/1/2001	6/30/2006
Foster County - TREES Program	Active	\$396,056	\$264,037	\$660,093	7/1/1999	6/30/2006
NDSU GIS Nitrate Assessment System	Completed	\$27,441	\$18,294	\$45,735	4/1/1999	6/30/2002
NDSU Livestock Waste Technical Information & Assistance Program	Active	\$980,269	\$653,513	\$1,633,782	3/1/1997	6/30/2006
Professional Fees	Completed	\$7,166	\$4,777	\$11,943	12/1/1999	6/30/2000
Project WET	Active	\$454,874	\$303,249	\$758,123	10/1/1993	6/30/2005
Statewide ECO ED Camp	Active	\$692,378	\$461,585	\$1,153,963	3/1/1997	6/30/2005
<b>Sub-Total</b>		\$2,752,462	\$1,834,975	\$4,587,437		

## Local Project Support (Technical and/or Financial Assistance)

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Dairy Pollution Prevention Program	Active	\$1,676,808	\$1,117,872	\$2,794,680	4/1/2000	6/30/2009
Groundwater Sensitivity Mapping	Active	\$786,000	\$524,000	\$1,310,000	4/1/2001	6/30/2005
Livestock Facility Assistance Program	Active	\$287,927	\$191,951	\$479,878	11/1/2001	6/30/2006
ND Waterbank Program	Active	\$744,509	\$496,339	\$1,240,848	10/1/1999	6/30/2005
NDSU Satellite Imagery Applications for WQ Protection	Active	\$293,460	\$195,640	\$489,100	6/1/2000	6/30/2005
NPS BMP Team	Active	\$876,801	\$584,534	\$1,461,335	3/1/1997	6/30/2006
Stockmen's Association Manure Management Specialist	Active	\$828,483	\$552,322	\$1,380,805	12/1/2001	6/30/2006
<b>Sub-Total</b>		\$5,493,988	\$3,662,659	\$9,156,647		

## Multi-Year NPS Assessment Projects

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Cannonball River Watershed Assessment - Phase II	Active	\$38,132	\$25,421	\$63,553	4/1/2001	6/30/2004
Devils Lake Basin Assessment (00 WRAS)	Active	\$72,876	\$48,584	\$121,460	7/1/2000	6/30/2004
NDSU Deep Soil Nitrogen Assessment	Active	\$66,666	\$44,444	\$111,110	4/1/1999	6/30/2004
Nine Township Assessment (Knife River)	Active	\$114,186	\$76,124	\$190,310	7/1/2001	6/30/2004
Pembina River Basin Assessment (99 WRAS)	Active	\$151,572	\$101,048	\$252,620	5/1/2000	12/31/2004
Rocky Run Watershed Assessment - Phase I	Completed	\$72,000	\$48,000	\$120,000	4/1/2000	6/30/2002
Tyler Coulee Water Quality Assessment	Completed	\$74,678	\$49,785	\$124,463	5/1/2000	6/30/2002
UND Aquifer Denitrification Assessment	Active	\$112,498	\$74,999	\$187,497	10/1/1999	9/30/2005
<b>Sub-Total</b>		\$702,608	\$468,405	\$1,171,013		

## NPS Program Staffing And Support

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
NPS Program Staffing & Support	Active	\$1,623,544	\$1,082,363	\$2,705,907	7/1/1999	6/30/2008
<b>Sub-Total</b>		\$1,623,544	\$1,082,363	\$2,705,907		

## Watershed Projects

<b>Project</b>	<b>Status</b>	<b>319</b>	<b>Local</b>	<b>Total</b>	<b>Start</b>	<b>End</b>
Antelope Creek Watershed	Discontinued	\$48,256	\$32,171	\$80,427	7/1/1998	7/1/2001
Barnes Co. Sheyenne River Watershed (01 WRAS)	Active	\$1,757,700	\$1,171,800	\$2,929,500	4/1/2001	6/30/2006
Beaver Creek Watershed (99 WRAS)	Active	\$773,165	\$515,443	\$1,288,608	7/1/1997	6/30/2004
Buffalo Springs & Lightening Creek Watersheds	Active	\$411,240	\$274,160	\$685,400	4/1/2001	6/30/2006
Cedar Lake Watershed	Active	\$613,037	\$408,691	\$1,021,728	3/1/1999	6/30/2004
Chanta Peta Watershed (00 WRAS)	Active	\$281,157	\$187,438	\$468,595	2/1/2001	6/30/2006
Cottonwood Creek Watershed (99 & 02 WRAS)	Active	\$1,429,894	\$953,263	\$2,383,157	3/1/1997	6/30/2006
Crooked Creek Watershed (00 WRAS)	Active	\$174,229	\$116,153	\$290,382	2/1/2001	6/30/2006
Griggs Co. 319 Water Quality Project (99 WRAS)	Active	\$1,213,536	\$809,024	\$2,022,560	7/1/1996	6/30/2004
Hay Creek Watershed - Phase III	Completed	\$60,738	\$40,492	\$101,230	3/1/1999	6/30/2001
Hay Creek Watershed - Phase IV	Completed	\$232,625	\$155,083	\$387,708	4/1/2001	5/31/2003
Hay Creek Watershed - Phase V	Active	\$543,880	\$362,587	\$906,467	7/1/2002	6/30/2004
Lower Pipestem Creek Watershed (02 WRAS)	Active	\$877,470	\$584,980	\$1,462,450	4/1/2002	6/30/2005
Maple Creek Watershed (00 WRAS)	Active	\$1,414,064	\$942,709	\$2,356,773	10/1/2000	6/1/2006
Middle Cedar Creek Watershed (00 WRAS)	Active	\$445,874	\$297,249	\$743,123	2/1/2001	6/30/2006
Mirror Lake Watershed	Active	\$485,937	\$323,958	\$809,895	3/1/1998	6/30/2005
Pheasant Lake/Elm River Watershed (03 WRAS)	Active	\$934,834	\$623,223	\$1,558,057	5/1/2003	6/30/2008
Pipestem Creek Watershed	Completed	\$44,937	\$29,958	\$74,895	5/1/1995	6/30/2000
Powers Lake Watershed (03 WRAS)	Active	\$538,205	\$358,803	\$897,008	5/1/2003	6/30/2008
Red River Riparian Project - Phases II & III (03 WRAS)	Active	\$2,717,228	\$1,811,485	\$4,528,713	3/1/1998	6/30/2007

Renwick Watershed - Phase II	Completed	\$75,763	\$50,509	\$126,272	3/1/1998	6/30/2001
Rocky Run Watershed - Phase II (02 WRAS)	Active	\$695,999	\$463,999	\$1,159,998	7/1/2002	6/30/2007
Upper Sheyenne Watershed (02 WRAS)	Active	\$816,833	\$544,555	\$1,361,388	7/1/1996	6/30/2005
Wild Rice Watershed (99 & 00 WRAS)	Active	\$1,320,428	\$880,285	\$2,200,713	10/1/1999	6/1/2005
<b>Sub-Total</b>		\$17,907,029	\$11,938,019	\$29,845,048		
<b>Total Budget for all NPS Projects</b>		\$30,770,972	\$20,513,981	\$51,284,953		

## **Appendix B**

### **NPS Project Allocations & Expenditures Under the 1999 Consolidated Grant**

Note: The 1999 Grant was closed-out on 12/31/02. All unexpended 319 funds as of the close-out date were transferred to the 2003 Consolidated Grant and included in the appropriate project budgets under that Grant. As a result of this funding transfer, all the project-specific budgets in this appendix will show a 100% drawdown. The 319 Expenditures shown in this appendix are the actual 319 expenditures under the 1999 Grant.

# Project Specific Section 319 Allocations and Expenditures Under the 1999 Consolidated Grant

July 1, 1999 - December 31, 2002

<u>Project Name</u>	<u>319 Allocation</u>	<u>319 Expenditures</u>	<u>319 Balance</u>	<u>Percent Drawdown</u>
Antelope Creek Watershed	\$48,256	\$48,256	\$0	100%
Armourdale Dam TMDL	\$3,449	\$3,449	\$0	100%
Barnes Co. Manure Mgt. & Streambank Restoration Demo.	\$84,667	\$84,667	\$0	100%
Barnes Co. Sheyenne River Watershed (01 WRAS)	\$304,586	\$304,586	\$0	100%
Bear/Bonehill Creek Assessment	\$32,797	\$32,797	\$0	100%
Beaver Creek Watershed (99 WRAS)	\$331,491	\$331,491	\$0	100%
Buffalo Springs & Lightening Creek Watersheds	\$160,653	\$160,653	\$0	100%
Cannonball River Watershed Assessment - Phase II	\$4,870	\$4,870	\$0	100%
Carbury Dam TMDL	\$1,316	\$1,316	\$0	100%
Cedar Lake Watershed	\$184,927	\$184,927	\$0	100%
Chanta Peta Watershed (00 WRAS)	\$52,087	\$52,087	\$0	100%
Cottonwood Creek Watershed (99 & 02 WRAS)	\$814,186	\$814,186	\$0	100%
Crooked Creek Watershed (00 WRAS)	\$10,226	\$10,226	\$0	100%
Dairy Pollution Prevention Program	\$263,250	\$263,250	\$0	100%
Development Projects (Completed under 99 Grant)	\$233,197	\$233,197	\$0	100%
Devils Lake Basin Assessment (00 WRAS)	\$14,830	\$14,830	\$0	100%
Digital Taxonomic Keys for Aquatic Insects in ND	\$71,845	\$71,845	\$0	100%
Envirothon Program	\$48,167	\$48,167	\$0	100%
Foster County - TREES Program	\$240,803	\$240,803	\$0	100%
Griggs Co. 319 Water Quality Project (99 WRAS)	\$579,002	\$579,002	\$0	100%
Groundwater Sensitivity Mapping	\$116,352	\$116,352	\$0	100%
Hay Creek Watershed - Phase III	\$60,738	\$60,738	\$0	100%
Hay Creek Watershed - Phase IV	\$215,308	\$215,308	\$0	100%
Hay Creek Watershed - Phase V	\$330,958	\$330,958	\$0	100%
Kelly Creek Water Quality Improvement Demonstration	\$183,275	\$183,275	\$0	100%
Lake Hoskins Water Quality Assessment	\$0	\$0	\$0	
Livestock Facility Assistance Program	\$7,198	\$7,198	\$0	100%
Lower Pipestem Creek Watershed (02 WRAS)	\$16,265	\$16,265	\$0	100%
Maple Creek Watershed (00 WRAS)	\$632,355	\$632,355	\$0	100%
McDowell Watershed TMDL	\$0	\$0	\$0	
Middle Cedar Creek Watershed (00 WRAS)	\$23,215	\$23,215	\$0	100%
Mirror Lake Watershed	\$334,290	\$334,290	\$0	100%
Mouse River Park Streambank Restoration Demonstration	\$60,000	\$60,000	\$0	100%
ND Waterbank Program	\$505,474	\$505,474	\$0	100%
NDSU Deep Soil Nitrogen Assessment	\$40,729	\$40,729	\$0	100%
NDSU GIS Nitrate Assessment System	\$27,441	\$27,441	\$0	100%
NDSU Livestock Waste Technical Information & Assistance Program	\$243,204	\$243,204	\$0	100%
NDSU Satellite Imagery Applications for WQ Protection	\$141,188	\$141,188	\$0	100%
Nine Township Assessment (Knife River)	\$59,207	\$59,207	\$0	100%
Northgate Dam TMDL	\$1,625	\$1,625	\$0	100%
NPS BMP Team	\$441,320	\$441,320	\$0	100%
NPS Program Staffing & Support	\$1,047,544	\$1,047,544	\$0	100%
Pembina River Basin Assessment (99 WRAS)	\$69,258	\$69,258	\$0	100%
Pipestem Creek Watershed	\$44,937	\$44,937	\$0	100%
Professional Fees	\$7,166	\$7,166	\$0	100%
Project WET	\$253,147	\$253,147	\$0	100%
Ransom C. Sheyenne River Assessment	\$7,116	\$7,116	\$0	100%
Red River Riparian Project - Phases II & III (03 WRAS)	\$1,164,054	\$1,164,054	\$0	100%
Renwick Watershed - Phase II	\$75,763	\$75,763	\$0	100%
Rocky Run Watershed - Phase II (02 WRAS)	\$6,933	\$6,933	\$0	100%
Rocky Run Watershed Assessment - Phase I	\$40,702	\$40,702	\$0	100%
Statewide ECO ED Camp	\$518,679	\$518,679	\$0	100%

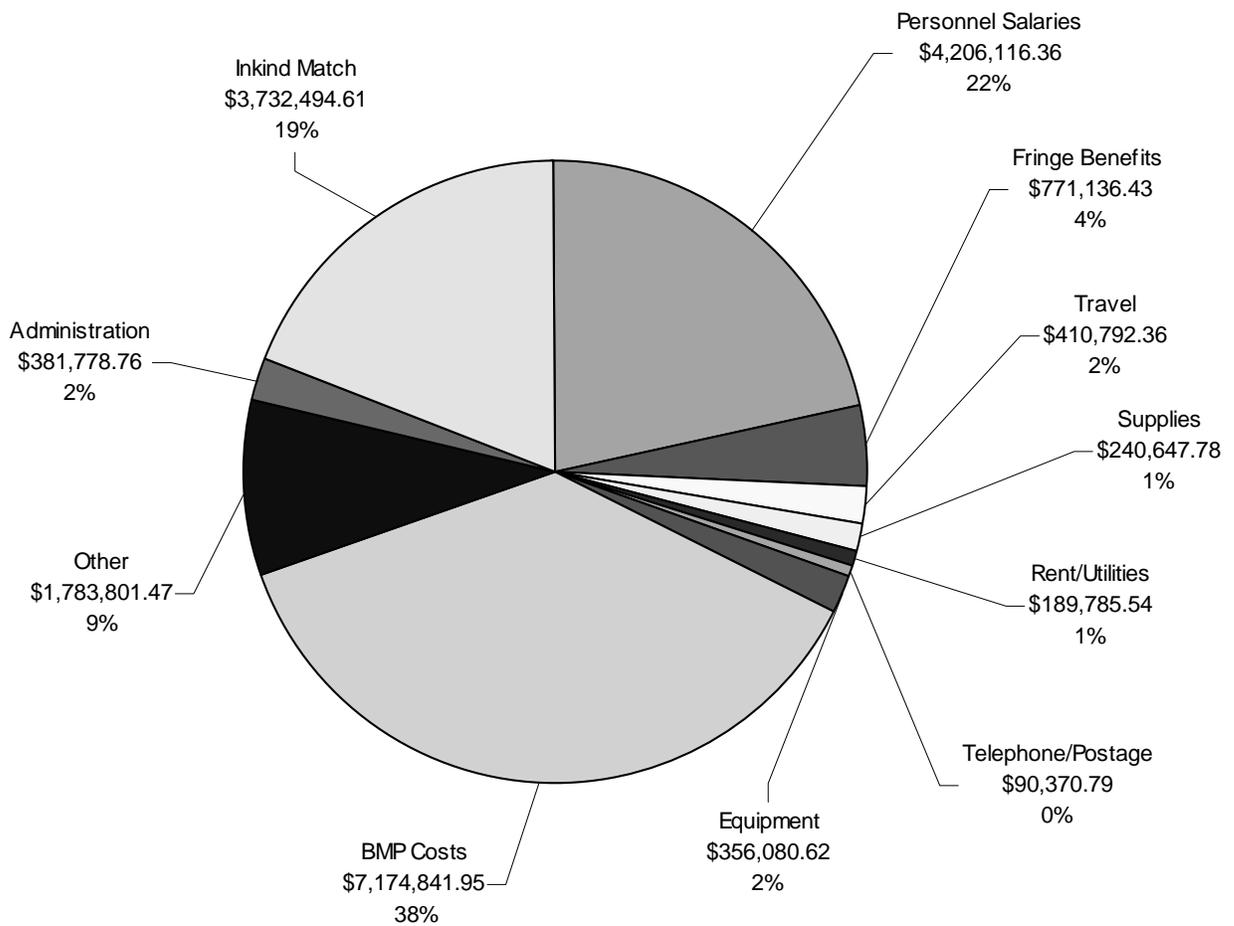
<u>Project Name</u>	<u>319 Allocation</u>	<u>319 Expenditures</u>	<u>319 Balance</u>	<u>Percent Drawdown</u>
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Stockmen's Association Manure Management Specialist	\$9,157	\$9,157	\$0	100%
SW North Dakota NPS/Water Quality I&E Project	\$498,350	\$498,350	\$0	100%
Tyler Coulee Water Quality Assessment	\$74,678	\$74,678	\$0	100%
UND Aquifer Denitrification Assessment	\$72,981	\$72,981	\$0	100%
Unobligated Development Phase Fund	\$0	\$0	\$0	
Upper Sheyenne Watershed (02 WRAS)	\$139,373	\$139,373	\$0	100%
Wild Rice Watershed (99 & 00 WRAS)	\$646,367	\$646,367	\$0	100%
<b>Total Allocations &amp; Expenditures</b>	<b>\$11,600,952</b>	<b>\$11,600,952</b>	<b>\$0</b>	<b>100%</b>

**1999 Consolidated Grant Expenditure Summary - July 1, 1999 thru December 31, 2002**

Section 319 Expenditures \$11,600,952.00

**Cumulative Line Item Expenditures Under the 1999 Consolidated Grant - July 1, 1999 thru December 31, 2002**



Local Cash Match	4,004,338.06
<u>Local Inkind Match</u>	<u>3,732,494.61</u>
Total Expenditures	\$19,337,784.67

## **Appendix C**

### **NPS Project Allocations & Expenditures Under the 2003 Consolidated Grant**

Note: Projects that indicate a 100% drawdown of 319 funding have been completed. The final reports for these projects (with the exception of the Development Phase projects) are attached in the GRTS or under development. The final assessment reports for the Development Phase projects are completed by NDDH staff and kept on file at the NDDH. Information from the assessment phase final reports are included in the PIP's if the local sponsors request implementation phase funding.

# Project Specific Section 319 Allocations and Expenditures Under the 2003

## Consolidated Grant

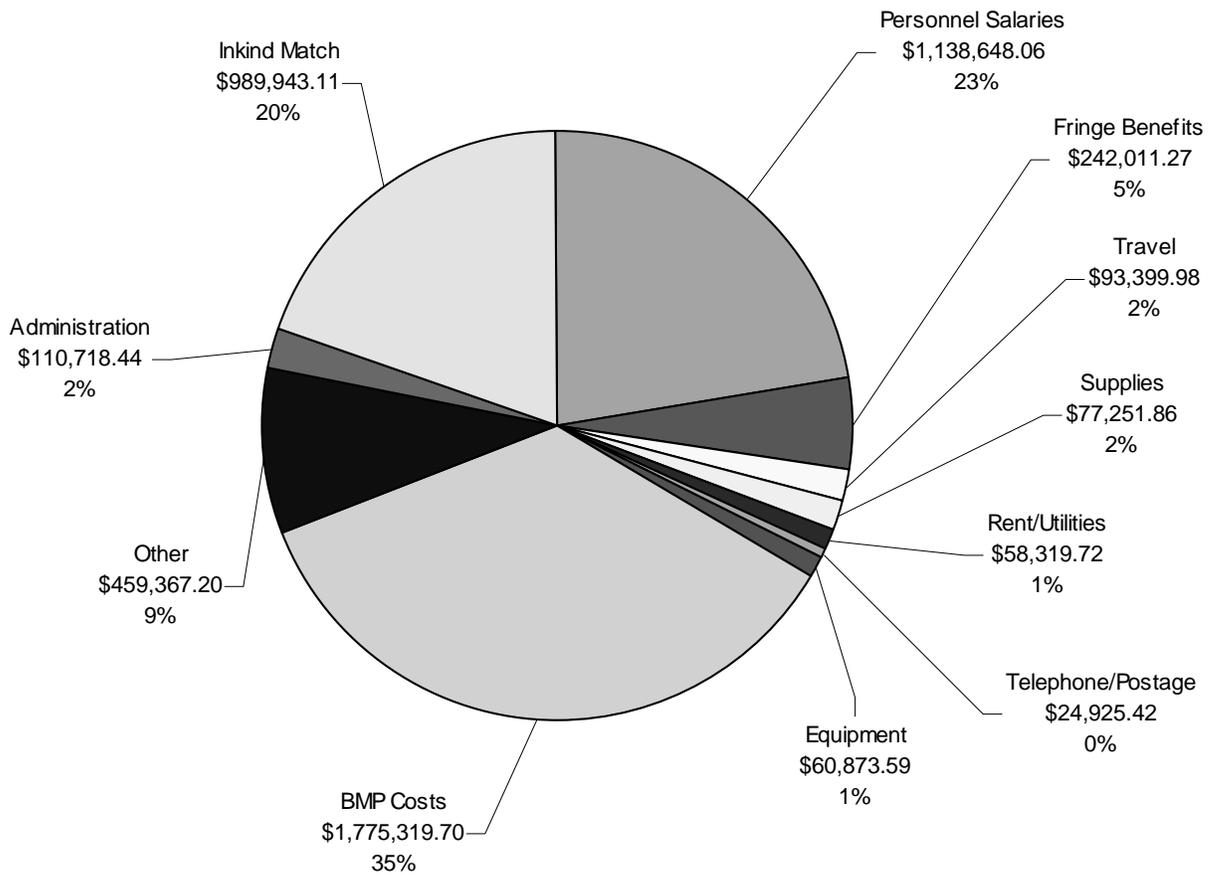
January 1, 2003 - October 31, 2003

<u>Project Name</u>	<u>319 Allocation</u>	<u>319 Expenditures</u>	<u>319 Balance</u>	<u>Percent Drawdown</u>
Armourdale Dam TMDL	\$4,051	\$2,471	\$1,580	61%
Barnes Co. Sheyenne River Watershed (01 WRAS)	\$1,453,114	\$43,809	\$1,409,305	3%
Bear/Bonehill Creek Assessment	\$15,253	\$12,815	\$2,439	84%
Beaver Creek Watershed (99 WRAS)	\$441,674	\$143,834	\$297,840	33%
Blacktail & McGregor TMDL Development Projects	\$15,000	\$4,930	\$10,070	33%
Buffalo Springs & Lightening Creek Watersheds	\$250,587	\$70,305	\$180,282	28%
Cannonball River Watershed Assessment - Phase II	\$33,262	\$1,777	\$31,485	5%
Carbury Dam TMDL	\$6,184	\$6,184	\$0	100%
Cedar Lake Watershed	\$428,110	\$40,192	\$387,918	9%
Chanta Peta Watershed (00 WRAS)	\$229,070	\$19,720	\$209,350	9%
Cottonwood Creek Watershed (99 & 02 WRAS)	\$615,708	\$104,953	\$510,755	17%
Crooked Creek Watershed (00 WRAS)	\$164,003	\$9,605	\$154,398	6%
Dairy Pollution Prevention Program	\$1,413,558	\$115,213	\$1,298,345	8%
Devils Lake Basin Assessment (00 WRAS)	\$58,046	\$2,638	\$55,408	5%
Dickinson Dike TMDL Development Project	\$7,500	\$6,853	\$647	91%
Digital Taxonomic Keys for Aquatic Insects in ND	\$28,488	\$8,918	\$19,570	31%
Envirothon Program	\$45,778	\$13,009	\$32,769	28%
Foster County - TREES Program	\$155,253	\$79,503	\$75,750	51%
Griggs Co. 319 Water Quality Project (99 WRAS)	\$634,534	\$171,288	\$463,246	27%
Groundwater Sensitivity Mapping	\$669,648	\$119,244	\$550,404	18%
Hay Creek Watershed - Phase IV	\$17,317	\$17,317	\$0	100%
Hay Creek Watershed - Phase V	\$212,922	\$211,781	\$1,141	99%
Kelly Creek Water Quality Improvement Demonstration	\$7,860	\$0	\$7,860	0%
Lake Hoskins Water Quality Assessment	\$26,241	\$3,578	\$22,663	14%
Livestock Facility Assistance Program	\$280,729	\$63,915	\$216,814	23%
Lower Pipestem Creek Watershed (02 WRAS)	\$861,205	\$103,131	\$758,074	12%
Maple Creek Watershed (00 WRAS)	\$781,709	\$149,797	\$631,912	19%
McDowell Watershed TMDL	\$22,688	\$12,920	\$9,768	57%
Middle Cedar Creek Watershed (00 WRAS)	\$422,659	\$9,995	\$412,664	2%
Mirror Lake Watershed	\$151,647	\$59,805	\$91,842	39%
ND Waterbank Program	\$239,035	\$63,821	\$175,214	27%
NDSU Deep Soil Nitrogen Assessment	\$25,937	\$4,527	\$21,410	17%
NDSU Livestock Waste Technical Information & Assistance Program	\$737,065	\$64,926	\$672,139	9%
NDSU Satellite Imagery Applications for WQ Protection	\$152,272	\$44,700	\$107,572	29%
Nine Township Assessment (Knife River)	\$54,979	\$18,049	\$36,930	33%
Northgate Dam TMDL	\$5,875	\$5,876	(\$1)	100%
NPS BMP Team	\$435,481	\$74,400	\$361,081	17%
NPS Program Staffing & Support	\$576,000	\$322,780	\$253,220	56%
Pembina River Basin Assessment (99 WRAS)	\$82,314	\$20,937	\$61,377	25%
Pheasant Lake/Elm River Watershed (03 WRAS)	\$934,834	\$12,374	\$922,460	1%
Powers Lake Watershed (03 WRAS)	\$538,205	\$0	\$538,205	0%
Project WET	\$201,727	\$67,702	\$134,025	34%
Ransom C. Sheyenne River Assessment	\$64,644	\$22,861	\$41,783	35%
Red River Riparian Project - Phases II & III (03 WRAS)	\$1,553,174	\$211,929	\$1,341,245	14%
Rocky Run Watershed - Phase II (02 WRAS)	\$689,066	\$26,162	\$662,904	4%
Rocky Run Watershed Assessment - Phase I	\$31,298	\$0	\$31,298	0%
Statewide ECO ED Camp	\$173,699	\$112,048	\$61,651	65%
Stockmen's Association Manure Management Specialist	\$819,326	\$26,475	\$792,851	3%
SW North Dakota NPS/Water Quality I&E Project	\$910,886	\$114,554	\$796,332	13%

<u>Project Name</u>	<u>319 Allocation</u>	<u>319 Expenditures</u>	<u>319 Balance</u>	<u>Percent Drawdown</u>
UND Aquifer Denitrification Assessment	\$39,517	\$4,574	\$34,943	12%
Unobligated Development Phase Fund	\$99,367	\$0	\$99,367	0%
Upper Sheyenne Watershed (02 WRAS)	\$677,460	\$22,027	\$655,433	3%
Wild Rice Watershed (99 & 00 WRAS)	\$674,061	\$169,965	\$504,096	25%
<b>Total Allocations &amp; Expenditures</b>	<b>\$19,170,020</b>	<b>\$3,020,187</b>	<b>\$16,149,833</b>	<b>16%</b>

**2003 Consolidated Grant Expenditure Summary as of October 31, 2003**

**Cumulative Line Item Expenditures Under the 2003 Consolidated Grant - January 1, 2003 thru October 31, 2003**

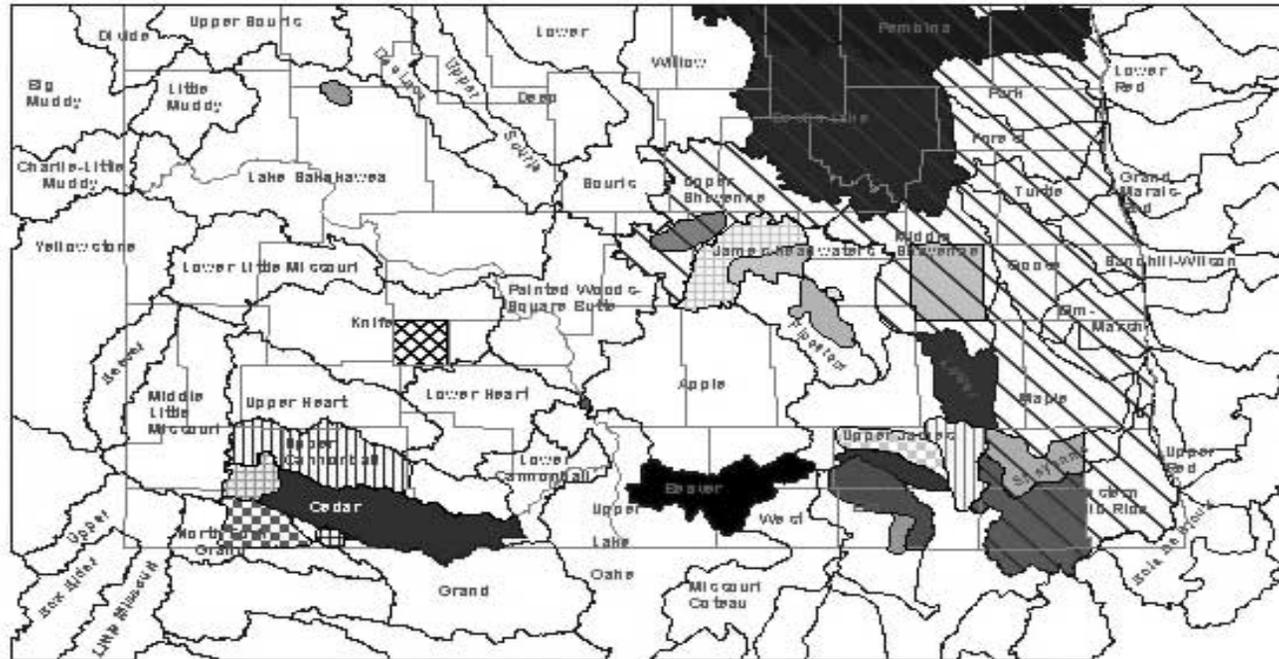


Section 319 Expenditures	\$ 3,020,187.03
Local Cash Match	1,020,648.21
<u>Local Inkind Match</u>	<u>989,943.11</u>
Total Expenditures	\$ 5,030,778.35

## **Appendix D**

### **Map of Watershed Project Areas**

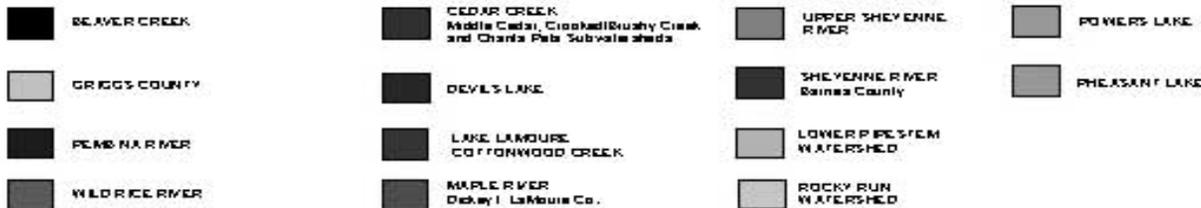
## NPS Management Program – Active Watershed Projects – August 2003



### Watershed Projects and Assessments



### Approved Watershed Restoration Action Strategies (WRASs)



## **Appendix E**

### **Watershed Project BMP Expenditures Under the 2003 Consolidated Grant**

**(Does not include BMP costs for Demonstration Projects)**

# Watershed Project BMP Expenditures Under the 2003 Consolidated Grant

January 1, 2003 - October 31, 2003

Category	Practice	Amount	Units	319 Cost	Producer Match	Total Cost
<b><i>Cropland Management</i></b>						
	Nutrient Management	28,574.10	Acres	\$62,481.50	\$41,653.33	\$104,134.83
	Pest Management	7,900.30	Acres	\$10,837.60	\$7,224.40	\$18,062.00
	Residue Management (Mulch)	23,336.50	Acres	\$98,003.23	\$65,335.51	\$163,338.74
	Residue Management (No-Till)	20,226.00	Acres	\$126,070.68	\$84,048.12	\$210,118.80
	<b>Subtotal</b>			\$297,393.01	\$198,261.36	\$495,654.37
<b><i>Grazing Management</i></b>						
	Fencing	318,039.90	Linear Feet	\$134,009.01	\$89,335.35	\$223,344.36
	Pasture/Hayland Planting	2,576.10	Acres	\$44,864.83	\$29,910.55	\$74,775.38
	Pipelines	34,182.00	Linear Feet	\$27,562.36	\$18,375.24	\$45,937.60
	Pond	10.00	Number	\$8,673.57	\$5,782.38	\$14,455.95
	Prescribed Grazing	320.00	Acres	\$960.00	\$640.00	\$1,600.00
	Trough and Tank	18.00	Number	\$7,901.67	\$5,266.78	\$13,168.45
	Use Exclusion	10.00	Acres	\$1,993.00	\$1,328.66	\$3,321.66
	Well (Livestock Only)	8.00	Number	\$21,497.17	\$14,331.45	\$35,828.62
	<b>Subtotal</b>			\$247,461.61	\$164,970.41	\$412,432.02
<b><i>Livestock Manure Management System (Full System)</i></b>						
	Cultural Resource Review	2.00	Number	\$611.56	\$407.70	\$1,019.26
	Phase I Waste Mgt. System	1.13	System	\$41,046.81	\$27,364.54	\$68,411.35
	Phase III Waste Mgt. System	0.50	System	\$55,178.66	\$36,785.78	\$91,964.44
	Waste Management System	1.00	System	\$36,431.65	\$24,287.76	\$60,719.41
	<b>Subtotal</b>			\$133,268.68	\$88,845.78	\$222,114.46
<b><i>Livestock Manure Management System (Partial System)</i></b>						
	Diversion	800.00	Linear Feet	\$3,243.39	\$2,162.26	\$5,405.65
	Waste Storage Facility	1.00	System	\$1,650.00	\$1,100.00	\$2,750.00
	Waste Utilization	1,369.20	Acres	\$21,611.20	\$14,581.96	\$36,193.16
	<b>Subtotal</b>			\$26,504.59	\$17,844.22	\$44,348.81

<b>Category</b>	<b>Practice</b>	<b>Amount</b>	<b>Units</b>	<b>319 Cost</b>	<b>Producer Match</b>	<b>Total Cost</b>
<b><i>Miscellaneous Practices</i></b>						
	Urban Stormwater Management	1.90	System	\$160,880.98	\$107,253.97	\$268,134.95
	Well Decommissioning	5.00	Number	<u>\$7,104.92</u>	<u>\$4,736.28</u>	<u>\$11,841.20</u>
			<b>Subtotal</b>	\$167,985.90	\$111,990.25	\$279,976.15
<b><i>Riparian Area Management</i></b>						
	Engineering Services - Preconstruction	2.00	System	\$6,192.15	\$4,128.11	\$10,320.26
	Riparian Forest Buffer	8.00	Acres	\$4,154.93	\$2,769.95	\$6,924.88
	Riparian Herbaceous Cover	13.00	Acres	\$2,530.83	\$1,687.23	\$4,218.06
	Streambank and Shoreline Stabilization	780.00	Linear Feet	\$20,652.99	\$13,768.65	\$34,421.64
	Tree Handplants	1,833.00	Number	<u>\$1,339.80</u>	<u>\$893.20</u>	<u>\$2,233.00</u>
			<b>Subtotal</b>	\$34,870.70	\$23,247.14	\$58,117.84
<b><i>Upland Tree Planting</i></b>						
	Tree/Shrub Establishment	20,131.34	Linear Feet	\$7,442.00	\$4,961.00	\$12,403.00
	Windbreak/Shelterbelt	37,798.00	Linear Feet	<u>\$4,290.29</u>	<u>\$2,860.19</u>	<u>\$7,150.48</u>
			<b>Subtotal</b>	\$11,732.29	\$7,821.19	\$19,553.48
			<b>Grand Total</b>	\$919,216.78	\$612,980.35	\$1,532,197.13

**Cumulative Section 319 Cost Share Assistance within the  
Watershed Project Areas  
Januray 1, 2003 thru October 31, 2003**

